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Knowing How to φ and Philosophical Methodology

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Thesis submitted for the degree of Master of Philosophical Studies (MPhil Stud in Philosophy)

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Declaration

I confirm that the work presented in this thesis is my own, and that where information has been derived from other sources this has been indicated.

Joshua Habgood-Coote 23rd August 2013

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Abstract

The question of the nature of knowledge-how is philosophically puzzling, because alongside the substantive disagreement about whether knowledge-how is a kind of propositional knowledge or not, there is methodological disagreement about how to answer this question. Since it would be undesirable for this debate to disintegrate into a methodological stand-off, in which opposing sides of the question could not agree on how to resolve the issue, it is important to take stock of the methodologies which are in play in the debate, and consider how to reconcile them. This is my project in this thesis.

To achieve this aim I will consider the use of results from linguistics to argue that knowledge-how is a kind of knowledge-that, and the use of counterexamples against the view that it is not. I will argue that neither source of evidence is philosophically decisive. The appeal to linguistics relies on various controversial philosophical theses, and ignores relevant philosophical issues. Using counterexamples to show that knowledge-how is a kind of knowledge-that is problematic; firstly because there are several distinct positions which contend that knowledge-how is not a kind of knowledge-that, and secondly because counterexamples are not the final word, dialectically speaking, on any analysis. I will not attempt to argue that these sources of evidence are irrelevant, but that they are useful tools only when used alongside other considerations, especially from the philosophy of mind. In order to show how considerations from the philosophy of mind can be relevant to inquiry into the nature of knowledge-how, I will consider the connection of knowledge-how to intentional action, and argue that this offers a picture of knowing how which can be used to assess accounts of knowledge how.

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Introduction

The recent literature on knowing how is puzzling. The central question is simple: is knowing-how a kind of knowledge-that? It is a question about the world, and how the entities in it are organised: whether one species of knowledge is a sub-species of another species of knowledge. One might think that the obvious way of answering it is by investigating what role knowing how plays in the life of a minded creature. This is not the approach which the majority of participants in the debate have taken. Instead of investigating knowledge how itself, they discuss the syntax and semantics of the sentences which are used to ascribe knowing how, and consider the views of the folk about various cases. Since the initial question concerned what knowledge how is, not how we describe it, or the nature of its folk-concept, it might be unclear why these considerations are relevant. This puzzlement raises a deep methodological issue: if the subject matter of philosophical investigation is neither linguistic nor conceptual, how can we successfully address philosophical questions by appeal to linguistic or conceptual considerations?¹

Some philosophers have argued that linguistic and conceptual considerations are simply irrelevant to questions about the nature of the world. By their lights, addressing a philosophical question by appealing to linguistic or conceptual considerations changes the question to one about language or concepts.

For example, in discussing Stanley and Williamson's linguistic argument against the distinction between knowledge-how and knowledge-that, Alva Noë comments that:

"It is difficult to see how the positive analysis offered by Stanley and Williamson entails the falsehood of Ryle's distinction between knowledge how and knowledge that. Ryle's distinction is not a thesis about the sentences used to attribute propositional and practical knowledge respectively. It is a thesis about the nature of practical and propositional knowledge."²

Noë seems to suggest that in considering language, Stanley and Williamson miss the point. Similarly, Hilary Kornblith prefaces his discussion of the methodology of epistemology with a scathing attack on the investigation of the concept of knowledge:

"The idea that philosophy consists in, or, at a minimum, must begin with an understanding and investigation of our concepts is, I believe, both natural and very attractive. It is also, I

¹ See (Brown 2012) for an in-depth discussion of this issue in epistemology, with some suggestions about the relevance of linguistic and conceptual considerations to philosophical inquiry.

² (Noë 2005, pp.286-7)

believe, deeply mistaken. On my view, the subject matter of ethics is the right and the good, not our concepts of them. The subject matter of philosophy of mind is the mind itself, not our concept of it. And the subject matter of epistemology is knowledge itself, not our concept of knowledge.”³

I agree with these methodological sceptics that we as philosophers ought to be more self-conscious about the methods which we employ, and that this requires a better understanding of the relevance of linguistic and conceptual considerations to philosophical inquiry. But I disagree with their wholesale scepticism about the use of linguistic and conceptual considerations. Linguistic and conceptual considerations can be legitimate philosophical evidence, if used appropriately.

It would be unsatisfactory if the debate about the nature of knowledge how became simply a methodological one, in which different kinds of evidence were found to favour different accounts. There ought to be a way of assessing the evidence adduced in favour of various accounts, despite its diverse sources. In this essay I will make a contribution to this project by considering two types of evidence used in the debate about knowledge-how. I will consider the use of linguistic considerations used by Stanley and Williamson to argue that knowledge-how is a kind of knowledge-that, and the use of counterexamples against the view that knowledge-how is ability. In both cases I will argue that these approaches do raise relevant issues, but that they do not resolve the question of the nature of knowledge-how by themselves. This is not to say that they are irrelevant, but that they should not be the only source of evidence considered.

Although my investigation is primarily methodological, and as such I will not try to argue for any particular view of knowledge how, I hope to make two substantive contributions to the debate.

The first will be to offer a novel way of setting up the debate. Traditionally, following Ryle, the debate has been set up with the players being the Intellectualists, who think that knowledge-how is a kind of knowledge-that, and the Anti-Intellectualists, who think that Intellectualism is false, and that knowledge how is mere ability. I think that identifying Anti-Intellectualism with an ability-based picture of knowledge how neglects the variety of Anti-Intellectualist positions. Hence, I will distinguish between Praxism, which claims that knowledge-how is mere ability, and Ryleanism, which claims that knowledge-how is a capacity-based, non-propositional form of knowledge.

The second contribution will be to argue that the arguments for Intellectualism are less plausible than has often been thought, since linguistics is not a decisive form of evidence, and the

³ (Kornblith 2002, p.1)

counterexamples used against Anti-Intellectualism have various flaws. By implication, this means that Anti-Intellectualism is more defensible than has been thought.

In the first section, I will set out a picture of what is at issue in the debate, and discuss the different positions which one might hold about the nature of knowledge how, distinguishing Intellectualism, Ryleanism and Praxism, relating them back to Ryle's discussion, and the question of whether knowledge-how is a kind of knowledge-that. In the second section I will consider Stanley and Williamson's linguistic argument for Intellectualism. Following this in the third section, I will begin my methodological considerations proper by considering Stanley and Williamson's use of syntactic and semantic theory. I will argue that although considerations from linguistics do raise important issues, treating linguistics as the sole and decisive form of evidence misses out extremely pertinent evidence against Intellectualism, and ignores the assumptions which must be made in interpreting semantic claims into a metaphysical picture. In the fourth section, I will turn to the use of counterexamples against Anti-Intellectualism, and consider what these cases, and our intuitive judgments about them, can show us. Again, my conclusion will be negative: although counterexamples play an important dialectical role in the debate they cannot by themselves decide what account is to be preferred. In particular, the counterexamples presented in the literature do not demonstrate the falsity of Anti-Intellectualism. In the final section, I offer something of a positive methodological contribution by considering how the role which knowledge how plays in intentional action might help us to shed some light on different accounts.

1. Preliminaries

Before plunging into methodological issues, it is worth considering the logical space in which the debate about knowledge how takes place. In this section, I will consider why we might be philosophically interested with knowledge how, sketch out the logical space and try to clear up some confusions about the possible positions which one might take.

In the first section I will consider an intuitive problem about knowledge how. In the standard case, when someone knows, they know *something*, which they can typically express in a full grammatical sentence, but in many cases of knowing how, the agent cannot adequately express their knowledge, or even offer a gloss on what it is that they know. I will use this puzzle to set out three positions on the nature of knowledge how: that it is a species of knowledge which takes a non-propositional object (Ryleanism), that it is mere ability (Praxism), and that it is a species of knowledge which takes a propositional object (Intellectualism). Ryleanism and Praxism have often been conflated under the Anti-Intellectualist head, in large part due to mis-readings of Ryle's discussion of knowledge how. In the second section, I will try to clear up these confusions by considering Ryle's contribution to the debate, and arguing that he is not a Praxist. In the third section I will offer a more formal characterisation of these three positions, and connect them to the question of whether knowledge-how is a species of knowledge-that. In the fourth section, I will consider some possible confusions about the species-genus conception of the debate.

1.1. A Problem about Knowing How

We have a fairly good grasp of the kind of knowledge which we ascribe in sentences of the form 'A knows that F'. This should hardly be a surprise – knowledge permeates many of our everyday practices, and in understanding these practices we must surely make use of the concept of knowledge. We could hardly make sense of practical reasoning, testimony or the quotidian search for truth without it. There are a number of well-established generalisations within this folk conception of knowledge. When you know, you know a fact,⁴ which you can assert in a full grammatical sentence. In the standard case you will also believe that fact to be true with some kind of reason or justification, meaning that when you tell someone else what you know, they will know it too (if they believe you).⁵ I will call the picture of knowledge as possessing these properties the Traditional Conception of knowledge.

⁴ I will use 'fact' and 'true proposition' interchangeably.

⁵ These conditions are deliberately vague – my goal is to elucidate a conception of knowledge, not to give necessary and sufficient conditions.

Of course, epistemology has other interests besides knowing facts. We might be philosophically interested in other species of knowledge, such as that which is ascribed in the direct object construction: as in 'Ruth knows Spanish', or 'Amy knows Florence'. We might also be interested in other intellectual concepts such as understanding, testimony and intellectual virtue.⁶ Broadening epistemology is certainly one reason to be concerned with knowledge how: as Katherine Hawley points out: "knowledge-how is interesting *qua* species of knowledge."⁷ However, there is also a philosophical puzzle which ought to motivate a special concern about the nature of knowledge how.

The phenomenon which I think puzzles philosophers is that it is not clear what we know when we know how to do something.⁸ In the cases of knowledge which are traditionally considered in epistemology it is easy to say what is known. If you know that David Cameron is the Prime minister, what you know is the fact that David Cameron is the Prime Minister. It is true that it is possible to locate a known fact in some cases of knowing how: when you know how to turn on the lights, you know that you can do it by flicking the switch, when you know how to annoy someone, you know that doing certain things gets on their nerves.

In other cases, this model seems not to apply: consider knowing how to ride a bicycle. It is tempting to deal with this case in the same way as the examples above by finding some facts which knowing how to ride a bicycle relates one to. We could probably come up with some facts about riding bicycles which we know because we know how to ride bicycles - that you need to keep your balance and move your legs to turn the pedals – but these are likely to be unsatisfying as an account of knowing how to ride a bicycle. Knowledge how to ride a bicycle is exercised in skilfully riding a bicycle and explains success in bicycle-riding, but this piecemeal knowledge of facts seems to do neither. This raises the question: how is it that we can know how to do things like ride bicycles given that we cannot locate facts which adequately circumscribe this knowledge?

It is important to notice that this problem does not arise for all knowledge ascribed with the word 'how'. Knowing how to turn on the lights and how to annoy someone are examples of know-how which relate knowers to facts, which they can express in language. The difficult cases of knowledge how are those which relate to basic action (walking, swimming, cycling) or skilled actions (playing sports, diagnosing illness, painting). This is a point to which we shall frequently return, but it is important to bear in mind.

⁶ For example, see (Kvanvig 2003), (Lackey 2008), (Zagzebski 1996)

⁷ (Hawley 2003 p.19), see also (Hawley 2010, 2011) for discussion relating to knowledge how in relation to testimony and epistemic injustice.

⁸ Adrian Moore calls this idea the independence claim (Moore 1997, C8)

We can formulate the problem about the difficult class of knowledge how as a triad of individually plausible but mutually incompatible claims. We want to say: (1) that knowing is a relation to a fact, which is apt to be expressed by the agent in a full grammatical sentence, because of our commitment to the traditional conception of knowledge. We also want to say (2) that some of us know how to ride bicycles (among other things), and that this is a kind of knowledge. But then we have a problem, insofar as it is true that (3) we cannot find anything satisfying which we can identify as the fact which we know in cases like knowing how to ride a bicycle.

There are three moves which we could make to resolve this puzzle:

- **Deny (1)** If we deny (1) then we claim that facts are not the only things which we are related to by knowledge. We might follow Ryle in calling the knowledge which does not relate us to propositions knowledge-how, and claim that the object of knowledge-how is activities rather than facts. I will call this position *Ryleanism*.
- **Deny (2)** Alternatively, we might say that since we cannot offer an account of what we know in cases like knowing how to ride a bicycle, we should deny that these cases are ones of knowledge. This seems like a fairly sceptical conclusion, but it could be made a little more palatable if we argue that know-how talk can be paraphrased as ability talk. I will call this position *Praxism*.⁹
- **Deny (3)** Finally, we might defend the traditional conception of knowledge by arguing that knowledge how is really a disguised species of knowledge of facts. We might claim it is propositional knowledge of rules or procedures for engaging in some activity. In deference to Ryle, I will call this position *Intellectualism*.¹⁰

We might think that at this point the question is just to refine Intellectualism. Since we have a clear conception of knowledge such that it relates us to facts which we can assert, and think that knowing how to ride a bicycle is a kind of knowledge, we just need to find a way of applying the propositional framework to the difficult cases. I think that this attitude is mistaken, because in addition to the lack of a clear propositional object, knowledge how does not possess the other features of the traditional conception of knowledge

⁹ It might be the case that no one is a Praxist in the sense of being committed to the claim that knowledge how is not a kind of knowledge, but since the ability to do things is not a species of knowledge, it is difficult to see how a Praxist might avoid this implication.

¹⁰ A related version of this move would be to understand knowledge how in terms of some other well-understood epistemic state, such as knowledge of objects, or understanding. Unfortunately, I do not have space to discuss this option here. See (Bengson and Moffett 2007, 2011b).

I have claimed that knowledge that something is the case is normally expressible in language, associated with a belief, is justified, and is in the game of testimony and telling. It is fairly difficult to see how the problematic kind of knowledge how could play any of these roles. Since we don't have a proposal about what it is that we know when we know-how, it is difficult to see just what it would be to express one's knowledge how to ride a bicycle in language, or what the associated belief(s) might be. We cannot say just that I believe how, since this is ungrammatical.¹¹ The association of know-how with beliefs is further weakened when we observe that we quite often have false beliefs about how to do things, without this undermining our knowing how to do them.¹²

Knowledge how does not seem apt for justification or reasoning either. It simply does not make sense to ask someone for the grounds of knowing how to do something.¹³ And, unlike knowledge of facts, the content of the knowledge does not provide evidence from which to infer facts. If I really know that I have hands, then I know that I am not a Brain in a vat, whereas it does not seem true that if I really know *how to swim*, then I know that I am not a Brain in a vat.¹⁴ Finally, knowledge-how seems to be associated with a different kind of learning to knowledge-that.¹⁵ This can be illustrated by the intuitive point that you need to learn more than facts in order to know how to ride a bicycle.¹⁶

If a type of knowledge failed to fulfil one or two of these conditions, we might be able to assimilate it into the traditional conception. That the difficult kind of knowledge how fails all of these conditions should raise concerns about the plausibility of the traditional conception of knowledge, and motivate us to consider Praxism and Ryleanism as live alternatives to Intellectualism.

1.2. Ryle and the Philosophical Theory of Intelligence

Ryle is generally taken to have key role in the debate about the nature of knowledge how, both in broaching the issue of the nature of knowledge how and in setting out the possible positions which one might hold. However, his position is frequently misunderstood in a way that distorts the

¹¹ (Ryle 2009 p.17) (page references throughout are to the 2009 edition)

¹² (Glick 2009 p.73), (Wallis, 2008 pp.130-37) A nice example is knowing how to catch (Devitt 2011a p.216). Most people believe that the way to catch is to calculate the trajectory of the ball and then move appropriately, whereas it seems that the actual method employed relies solely on changes in the angle of gaze. (Reed, McLeod, and Dienes 2010)

¹³ (Ryle 2009 p.17)

¹⁴ (Sgaravatti and Zardini 2008, p244-52) see also (Glick 2009 p.72)

¹⁵ (Ryle 1945 pp.14-15; 2009, pp. 28-30, 37) (Hawley 2010)

¹⁶ Another feature of knowledge-that which has received a great deal of attention is Gettierisability (Stanley and Williamson 2001) (Poston 2009), (Stanley 2011a, 2011b), (Cath,2011). I am unsure how to frame the question of the Gettierisability of knowledge how, since the difficult kind of know how is not obviously associated with a justified belief. Another important question which I lack the space to explore here is whether the value of knowledge how has a distinctive kind of epistemic value.

debate. According to a commonly held view, he proposes a ‘fundamental’ distinction between knowing how and knowing that according to which knowing that is a behaviourally-inert relation to a proposition, which must be considered to be put into action, whereas knowing how to do something is just the ability to do it.¹⁷ In reality, Ryle does not have any very definitive views about knowledge how, other than that it cannot be reduced to knowledge of facts, and he certainly does not endorse a fundamental distinction between knowledge-how or knowledge-that, or equate knowing how with ability.

Ryle’s discussion of knowing how and knowing that is found in his 1945 address to the Aristotelian Society, and in chapter 2 of *The Concept of Mind*. Although there is a deal of overlap in these papers, they have different aims. In the Address, Ryle’s interest lies in intelligent practice both practical and theoretical, and his goal is to demonstrate that we exercise intelligence directly in practice, rather than only as a by-product of the propositions which we know. In the chapter, Ryle argues against an aspect of the Cartesian myth which assimilates intelligence concepts to internal operations, and he uses more examples of practical competences to make his point that we need an idea of intelligence exercised in action. However, in both pieces his opponent is the same. He aims to undermine the Intellectualist picture of the mind, according to which intelligence lies solely in the capacity to theorise and generate propositional knowledge.¹⁸

His overarching aim is to reorient our understanding of intelligence away from the Cartesian model. In the chapter, he claims that his goal is:

“To show that when we describe people as exercising qualities of mind, we are not referring to occult episodes of which their overt acts and utterances are effects; we are referring to those overt acts and utterances themselves.”¹⁹

This might seem a little out of place in Ryle’s hatchet job on Cartesian thinking, but in an important way the critique of the Intellectualist picture of intelligence is a microcosm of his anti-Cartesian project to replace the tendency to think of the mental as inner with a picture of the explanatory role of mental language in human life.²⁰

Ryle claims that the Intellectualist’s attempt to account for intelligence falls into a regress.²¹ The basic contention is that the Intellectualist’s only account of how knowledge can motivate

¹⁷ See (Stanley and Williamson 2001), (Snowdon 2004)

¹⁸ (Ryle 1945, p.5, 2009 p.26)

¹⁹ (Ryle, 2009, p.14)

²⁰ (Ryle, 2009, p.32)

²¹ (Ryle 1945 pp.2-3; 2009, pp.19-20)

intelligent action is via the consideration of propositions. However, once the Intellectualist admits this, she has a serious problem. The mere consideration of propositions does not guarantee intelligent action, because one could consider the wrong proposition, at the wrong time, in the wrong way. So the Intellectualist needs an account of the intelligent consideration of propositions. However, because she explains intelligence by appealing to propositional knowledge, she can only offer such an account by positing more propositional knowledge, about which the same concern about application will clearly emerge, leading to a regress. Ryle's lesson from this regress is that intelligence cannot be purely explained by or reduced to knowledge of propositions, since explaining intelligence by appeal to the exercise of propositional knowledge assumes the very faculty of intelligence which it sets out to explain.

His treatment for the Intellectualist confusion is *not* to propose a theory of knowledge how. Ryle's overall project is not conceptual analysis, but what he calls *Logical Geography*: the project of giving a map to allow us to navigate the concepts which we already possess.²² The goal of this project is not truth, but knowing our way about better. In pursuit of this goal he offers us not a theory of knowing how, but a discussion of practical intelligence which offers us a better understanding of the nature of intelligence, and its relation to knowing how. Ryle's lesson is that we must understand intelligence in relation to what people do, rather than in relation to the mental operations from which their action flows and that in order to do so, we must recognise a notion of non-propositional knowledge.

1.3. The Standard Reading of Ryle

The picture of Ryle as trying to offer us a picture of practical intelligence grounded in a non-propositional notion of knowledge how has been obscured by a widely held but mistaken view of his discussion. According to this view, Ryle's discussion of knowledge how aims to defend two theses: that know-how and know-that are distinct explanatory notions, and that knowing how to do something is just the ability to do it.²³ This reading is most clearly identified by Snowdon, but is at work elsewhere. For example, the idea of the fundamental distinction between knowledge-how and knowledge-that is often central in stating the 'ability' response to Frank Jackson's 'Mary' argument.²⁴

²² See the introduction to *The Concept of Mind* (Ryle 2009 pp.lix-lxi) and his essay *Abstractions* (Ryle 1962), see also (Tanney 2009a, 2009b)

²³ Key proponents of this reading are (Stanley and Williamson 2001), and (Snowdon 2004). (Stanley 2011b C1) steers away from attributing the ability thesis, but continues to attribute the distinctness thesis to Ryle.

²⁴ The ability response is often paraphrased by saying that knowing what it's like is knowing how, not knowing that. It might be the case that Nemirow equates knowledge how with mere ability (Nemirow 1990), but Lewis is clear that propositional knowledge is involved in ability. For example: "aspects of ability are purely and

I will briefly discuss each of these theses, to try to show that Ryle does not subscribe to either.

1.3.1. Distinctness?

It is tempting to think that Ryle's argument for the existence of a non-propositional species of knowledge how should lead us to recognise two species of knowledge which play entirely different roles. His way of speaking about knowledge how can give the impression of a deep distinction,²⁵ but this picture of his discussion is out of line with his wider project.

Seeing Ryle as endorsing a fundamental distinction importantly misconceives both Ryle's purpose in discussing knowledge how, and the point of the regress argument. His aim is not to make sharp distinctions between different species of knowledge, but to reorient our thinking about knowledge by giving us a map to think about practical intelligence. The regress argument commits Ryle to thinking that intelligence is not simply knowledge of propositions, but this does not mean that he thinks that propositional knowledge has no role to play in understanding intelligence. It is quite compatible with the regress argument that we sometimes *do* consider propositions before acting intelligently; Ryle's point is that we must do so intelligently, and that this is not merely a matter of having more propositional knowledge.²⁶

When we look at Ryle's wider epistemological picture, there are clear conceptual connections between knowledge-how and knowledge-that. Ryle thinks that know-how is important for understanding theoretical reasoning,²⁷ thinks that know-how can be formulated into propositional rules of thumb,²⁸ and claims that knowledge-that is dependent on knowledge-how.²⁹ Furthermore, Ryle thinks that 'knowledge' is a generic dispositional term, meaning that he cannot endorse a distinction between a behaviourally inert conception of knowledge-that and a behaviourally active conception of knowledge-how: for him knowledge that is just as much of a dispositional concept as knowledge how.³⁰

simply, a matter of information. If you want to know how to open the combination lock on the bank vault, information is all you need." (Lewis 2004 p.100).

²⁵ "Philosophers have not done justice to the distinction which is quite familiar to all of us between knowing that something is the case and knowing how to do things." (Ryle 1945 p.4)

²⁶ "Certainly we often do not only reflect before we act but reflect in order to act properly." (Ryle 2009, p.18)

²⁷ (Ryle 1945)

²⁸ (Wiggins 2012 pp.13-18) (Ryle 1945 pp.6-7, 9; see the example of the Surgeon in (Ryle 2009, 37)

²⁹ (Ryle 1945 pp.4-5). This idea is also endorsed by (Hartland-Swann, 1956), (Roland, 1958) and (Hetherington, 2006, 2008, 2011).

³⁰ (Ryle 2009 p.114)

1.3.2. Is Knowledge how Ability?

Ryle does make claims which could be read as offering an equation of knowledge how with ability. For example at the beginning of the section on knowing how and knowing that he says:

“When a person is described by one or other of the intelligence-epithets such as ‘shrewd’ or ‘silly’, ‘prudent’ or ‘imprudent’, the description imputes to him not the knowledge, or ignorance, of this or that truth, but the ability, or inability, to do certain sorts of things.”³¹

If one reads Ryle as a behaviourist, then it is tempting to read this quote as endorsing the equation of know-how with ability. However, as we have seen, Ryle is not interested in constructing theories, so he cannot be committed to anything like analytical behaviourism.³² Although in a passage like this Ryle situates intelligence within the range of ability concepts, he makes no analytical claim about the kind of disposition which is in play or what its exercises are. His claim is that knowledge how is in the same conceptual space as ability, not that knowledge how *is* ability.³³ He in fact warns against identifying knowing how with a uniform disposition to act, claiming that its exercises are ‘indefinitely heterogeneous’.³⁴

Once we focus in on Ryle’s positive claims about practical intelligence, it should be clear that he actively distinguishes knowledge how from ability. His distinction between intelligent capacities and habits makes this particularly clear, since it shows that he thinks that not all abilities count as knowledge-how. Whereas Ryle takes habits to be single track dispositions, learnt by drill, and insensitive to the particular situation, pieces of know-how are intelligent multi-track dispositions, learnt by practice, and sensitive to the particular situation.³⁵ Unlike habit, Ryle thinks that the capacity associated with knowing how to do something is rational and normative, consisting of the capacity to apply criteria to action.³⁶ This action need be one’s own: Ryle thinks that we exercise our know-how both in criticising, and in observing the performances of others.³⁷ For Ryle, knowledge-how is not just exercised in φ -ing narrowly construed, but in a range of activities relating to φ -ing.

³¹ (Ryle 2009 pp.16-7)

³² On the behaviourist reading of Ryle see (Tanney 2009a, 2009b)

³³ (Hornsby 2011 p.82)

³⁴ (Ryle 2009 p.32), (Tanney, 2009b pp.xxii-xxxiii)

³⁵ (Ryle 2009 pp.46-50) on the kind of sensitivity required, see (Ryle 1979)

³⁶ “Knowing how, then, is a disposition, [...] Its exercises are observances of rules or canons or the applications of criteria,” (Ryle 2009, p.34 see also pp.17-18, 28)

³⁷ (Ryle 2009, pp.33-34, 39-47)

It is certainly true that many philosophers have made the equation of knowledge how with ability, some of them claiming support from Ryle.³⁸ We ought to take this position seriously, but seeing it as the only alternative to Intellectualism obscures Ryle's contribution to the debate.

1.4. 'Knowledge-how is a Species of Knowledge-that'

Having distinguished three possible positions about the nature of knowledge-how, I will now turn to the bare bones of the Intellectualist and Anti-Intellectualist positions to make the logical space clear. I will do this by taking a slightly different tack, and asking how these three positions approach the question of whether knowledge-how is a species of knowledge-that.

One way of stating the issue about the nature of knowledge-how is to ask whether knowledge-how is a species of knowledge-that. The Intellectualist claims that it is, whereas the Praxist and Rylean disagree, although for different reasons. The Praxist thinks that knowledge-how is mere ability, whereas the Rylean thinks that knowledge-how is a *sui generis* species of knowledge which relates agents to activities.

A species-genus claim makes a necessity claim of the form:

$$1) \quad \forall(x) (Fx \rightarrow Gx)$$

If we plug the claim 'knowledge-how is a species of knowledge-that' into this formula, then we get the following:

$$2) \quad \forall(x) (\text{If } x \text{ is knowledge-how, then } x \text{ is knowledge-that})$$

Although there is something right about this claim, it sounds odd, because knowledge is a mass noun, which means that what it refers to can be measured, but not counted. We can ask how *much* knowledge someone has, but not how *many* knowledges they have.³⁹ This makes it odd to quantify over knowledge as if the term referred to particulars. The issue of how to understand mass nouns is a rather difficult one, so the temptation is to avoid it entirely by quantifying over states of knowledge as if they were particulars, or over particular agents' knowledge. For example:

$$3) \quad \forall(x) (\text{If } x \text{ is a state of knowing how to } \varphi, \text{ then } x \text{ is a state of knowing that } p)$$

$$4) \quad \forall(S) (\text{If } S \text{ knows how to } \varphi \text{ then } S \text{ knows that } p)^{40}$$

³⁸ For example, (Bechtel and Abrahamson 1991), (Rosefeldt 2004), (Noë 2005)

³⁹ If we succeed in making sense of this question 'how many?' in relation to a mass noun, then it will refer to types rather than instances. Consider the question "how many metals do you have in stock?"

⁴⁰ Where φ is a variable standing for activity-types, p is a variable standing for propositions, and S is a variable standing for agents.

However, neither of these claims is any better at capturing the Intellectualist claim. The problem about quantifying over states of knowledge is that it requires a prior account of which metaphysical category knowledge-how and knowledge-that fall into. Ryle will presumably simply deny that knowledge can be split into states, opting for a dispositional understanding of knowledge.⁴¹ The problem about quantifying over agents' knowledge is that it ignores the fact that knowledge-how and knowledge-that may well co-occur without being identical. Presumably everyone who knows how to ride a bicycle knows that bicycles have wheels, but this knowledge is not identical with their knowing how to ride a bicycle.

I think that we can capture the species-genus claim by introducing an identity claim into species-genus claim:

$$5) \quad \forall(x) (Fx \rightarrow \exists(y) (Gy \ \& \ (x=y))).$$

If we understand the Intellectualist's identity claim in category-neutral terms as 'are the same piece of knowledge', we get the following characterisation of Intellectualism:

$$6) \quad \forall(S) \text{ (If } S \text{ knows how to } \varphi \text{ then } (S \text{ knows that } p, \text{ and } S\text{'s knowing how to } \varphi \text{ and } S\text{'s knowing that } p \text{ are the same piece of knowledge))}.^{42}$$

This is a general version of Intellectualism, which any particular Intellectualist account will entail. In order to provide an analysis of knowledge how, an Intellectualist will have to identify a set of necessary and sufficient conditions for knowledge. Since not every known proposition suffices for know-how, they will need to find some way of restricting to a relevant kind of proposition.⁴³

$$7) \quad S \text{ knows how to } \varphi, \text{ if and only if } S \text{ knows that } p \text{ and } R(p)$$

Where R is a property which restricts to the relevant kind of proposition, in accordance with the analysis in question.

Ryleanism and Praxism agree on the falsehood of (6), and hence of all versions of the Intellectualist analysis along the lines of (7). Since both positions situate knowledge how in the family of capacity-concepts, they can also agree on a counter-claim to (6) about what category knowing how falls into.

⁴¹ See (Stout 2006, C9) for a behaviourist account of knowledge.

⁴² This will need to be slightly adjusted to allow for one-many identity claims between knowledge-how and knowledge-that, see §5.2 below.

⁴³ (Glick 2009 p.23) Glick goes on to offer a reading of the species genus claim using this restriction to propositions.

- 8) $\forall(S)$ (If S knows how to φ then (S has the capacity to ψ , and S's knowing how to φ is nothing over and above S's capacity to ψ))

I will call any view which asserts this claim *Anti-Intellectualist*. Within the Anti-Intellectualist species-genus claim, we have an alternate conceptual space within which to give an analysis of knowledge how in terms of capacity.⁴⁴

It is at this point at which we see the difference between Praxism and Ryleanism. The Praxist claims that:

- 9) S knows how to φ if and only if S possesses the ability to φ

The alternative to Praxism is to identify knowledge how with a capacity which counts as a type of knowledge. In order to offer such an account, the Rylean gives an account of what kind of capacity knowing how is, and what its exercise is. We might offer the following as a general gloss on Ryleanism (bearing in mind that Ryle himself offers no substantive account of knowledge how):

- 10) S knows how to φ , if and only if S possesses the capacity to ψ and $R(\psi)$

Where paralleling the Intellectualist claim, R is a property which restricts to the relevant type of activity. This analysis is distinct from that offered by the Praxist, because it can endorse the claim that knowing how is exercised in activities other than φ -ing, and can give a richer account of the kind of capacity in question than the Praxist's mere ability picture.

1.5. Loose Ends in the Species-Genera claim

The formulation offered in the previous section helps us to get clear on the three-position framework on the nature of knowledge how, but it leaves a couple of loose ends which might trip us up later on, which I will now consider.

- i) *What about knowledge-that? Isn't this whole debate empty without an account of the nature of knowledge-that, so that we can assess whether or not knowledge-how is a species of it?*

That the picture of the species-genus claim which I offer above is not committed to any account of propositional knowledge is a virtue, since the puzzle which I set out above is motivated by the idea that when you know, you know something, which is general to all accounts of propositional knowledge. However, it is worth pointing out that we can understand 'knowledge-that' in two ways:

⁴⁴ (Bengson and Moffett 2011a)

as the kind of knowledge which is a relationship to a proposition, or as a thicker relationship, having more of the properties in the traditional conception of knowledge.⁴⁵ Whereas the reduction of knowledge how to the thin conception of knowledge-that is plausible, the reduction to the thick conception is not. Knowledge-how does not look very much like what we might call ‘ordinary’ knowledge-that.⁴⁶

- ii) *What kind of species-genus relationship is in play? If we think with Ryle that knowledge how disposes its possessors to intelligent action, but that ordinary knowledge-that does not, how could it be that knowledge how is a kind of knowledge-that?*

It is true that it is difficult to see how knowledge how could possibly be ordinary knowledge of propositions plus some extra factor, but this does not mean that Intellectualism is obviously false. Some species can be reductively analysed in terms of the genus together with some other independently understood properties; others cannot. Snub noses are a species of nose, which also possess the property of being concave. Red is a kind of colour, but there is no reductive definition of red in terms of being coloured, together with some other property.⁴⁷ A reductive Intellectualist might claim that knowing how consists of ordinary knowledge-that with some independently understood property, but a non-reductive Intellectualist can claim that knowing how is propositional knowledge, together with other properties unique to knowing how, which explain the connection to intelligent action.⁴⁸ This is the kind of position which we ought to consider when we assess Intellectualism.

- iii) *Isn't Anti-Intellectualism obviously false? There are many examples of knowledge how which intuitively seems propositional, for example knowing how Trotsky died, or how to annoy someone.*⁴⁹

This question raises the difficult issue of how we are to pick out the interesting class of knowledge how. It is tempting to identify it by considering just the knowledge ascribed with the words ‘know’ and ‘how’. This clearly won’t do because of examples of propositional knowledge ascribed with the word ‘how’. Although this issue is more pressing for the Anti-Intellectualist, to avoid obvious counterexamples to her position, the problem also arises for the non-reductive

⁴⁵ (Glick 2011) distinguishes these two pictures of knowledge and diagnoses some confusions which have arisen as a result of the failure to distinguish them clearly.

⁴⁶ (Snowdon 2004, p.27)

⁴⁷ On different varieties of species-genus relationship, see (Ford 2011)

⁴⁸ (Stanley and Williamson 2001, p.434)

⁴⁹ (Rumfitt 2003, p.166)

Intellectualist, as she will need to say which class of knowledge-that is of the special, 'knowing-how' kind.

In order to pick out the relevant class of knowledge, we might first consider what work the word 'how' is doing here. 'How' can refer to a range of categories which we are not concerned with here - events, objects, people, measurements, sensory appearances and so on. We might say that we are interested in 'how?' as it relates to acting, and restrict our attention to 'knowing how to', followed by a verb.⁵⁰

This is not quite restrictive enough, however, as there are cases of knowing how to φ which are also propositional. Knowing how to do something can come to simply knowing what one ought to do, as when we say a child knows how to behave at a funeral. Knowing how can also be just knowing how something is done, as when we say that someone knows how to rob a bank because he has seen it happen on the television. Knowing how can also be propositional knowledge of a way of doing something, as with the examples of switching on the light and annoying someone. We can set these examples to one side, as not immediately relevant to the issue at hand. Perhaps the best that we can do is to pick out the class of knowledge negatively by saying that we are interested in the kind of knowledge how for which it is not clear what the object of knowledge is, excluding the three kinds of obviously propositional knowledge discussed above.

There are several positive ways of picking out the relevant type of knowledge, but I think that they are not entirely convincing. Devitt suggests that the psychological category of procedural knowledge maps onto the folk category of knowledge how, whereas Glick and Fantl suggest using examples of knowledge how to get a grip on the relevant phenomenon.⁵¹ I am not convinced by either approach. It is unclear that everything that fits into the category of procedural knowledge is of the same kind, as the distinction between procedural and declarative knowledge is at bottom a formal distinction about how information is represented, and not an epistemological distinction.⁵² It may well be that some central cases of procedural knowledge are knowledge-how of the sort which we are interested in, but making this judgement requires a prior notion of what knowledge how is. Using examples to pick out the kind of knowledge which we are interested in might be useful, but only if we have a neutral way of picking out relevant examples. The distinction between knowledge-how and knowledge-that has a deep cultural history tied to notions of class, race and gender, and it

⁵⁰ (Hornsby 1980, p.84)

⁵¹ (Fantl 2008, p.451), (Devitt 2011a, 2011b), (Glick 2011, 427-8).

⁵² (Stanley 2011b, C7)

would be extremely undesirable to import these prejudices into our account of knowledge how by picking out biased examples.⁵³

1.6. Conclusion

In this section, I have set out a number of preliminary issues, in order to prepare the ground for my discussion to come. I have set out a puzzle which motivates the key positions about the nature of knowledge how, and argued that we should set out a three-position debate rather than a two-position debate, distinguishing Intellectualism from Praxist and Rylean versions of Anti-Intellectualism. I then moved on to discuss Ryle's role in the debate, and distinguished his position from that of the Praxist, before considering how the three positions approach the question of whether knowledge-how is a species of knowledge-that.

⁵³ For a discussion of the political uses of the distinction see (Stanley 2012b). A proper appreciation of this point might lead to a more varied diet of examples than just those concerning the leisure activities of academic philosophers (swimming, cycling, skiing etc.).

2. Stanley and Williamson's Intellectualism

In their 2001 article, Stanley and Williamson offer what they take to be a knock-down argument for Intellectualism.⁵⁴ Taking inspiration from D.G Brown and Jaakko Hintikka, they offer an analogy between knowledge how and other kinds of knowledge ascribed with an interrogative such as knowing where and when,⁵⁵ arguing that consideration of the semantic and syntactic claims which are at issue in the debate overwhelmingly favour the Intellectualist. They give two arguments for favouring their picture, which appeal to the syntax and semantics of the relevant class of ascriptions. The syntactic argument points out that the similarities in the structure of the sentences used to ascribe knowledge-how and knowledge-wh, together with the propositional character of knowledge-wh, would lead one to think knowledge-how ascriptions are ascriptions of propositional knowledge. Because of the appeal to linguistic similarity, I will call this the *Uniformity Argument*. Their appeal to semantics consists in an analysis of the semantics of the embedded question in the typical know-how ascription which they use to offer an account of knowledge how. I will call this the *Compositional Argument*. It is worth spending some time discussing these arguments separately and in some detail, as they appeal to different kinds of linguistic evidence, and have importantly different conclusions.

In the first section, I will offer a sketch of Stanley and Williamson's approach, and discuss knowledge of answers. In the second and third sections, I will set out the Uniformity and Compositional arguments. In the final section I will discuss three extensions which they propose to make their view defensible: an account of the expression of knowledge how, an account of what is distinctive about the interesting kind of knowledge ascribed with the word 'how', and an account of how knowledge how is exercised in action.

2.1. Knowing the Answer

We should start by briefly considering knowledge which is ascribed with an interrogative clause. Sometimes, we do not ourselves know something, but we have good evidence that someone else does. I might not know the name of the fungus growing on your roses, but my horticulturalist friend Jake will. In such cases, it would be helpful to have a tool for recommending good informants

⁵⁴ I will refer to (Stanley and Williamson 2001) for key arguments in what follows, using (Stanley 2011a, 2011b, 2012a and forthcoming) as elaborations of the 2001 account. I do not have space here to systematically distinguish Stanley's position from that of Stanley and Williamson, as the differences are rather complex, concerning the semantics of questions and *de se* knowledge. I will assume throughout that the responses made by Stanley to problems posed to the 2001 position are legitimate developments of that view.

⁵⁵ I will call interrogative knowledge with a wh-question (excepting how), knowledge-wh. Strictly speaking, knowledge-wh is not really a type of knowledge, but a type of ascription.

to others without knowing what the informants know oneself.⁵⁶ We can do this by inserting an interrogative into a knowledge ascription instead of a that-clause, for example by saying that Jake will know *what the fungus is*.

Since the answers to questions are facts, when we ascribe knowledge-wh, we typically ascribe propositional knowledge. Consider the following examples:

- 1) Ruth knows when Charles the First was executed
- 2) Anna knows why heart attacks happen
- 3) Bernard knows who got married in Chichester this year.
- 4) Jake knows when to plant Strawberries

The simple cases like (1) admit of easy propositional substitutions: if (1) is true, then Ruth knows that Charles the First was executed on the 30th January 1649. In other cases, the content of the embedded question is dependent on the context. For example, how detailed an answer Anna must know for (2) to be true depends on whether she is a child or a medical student. An ascription of knowledge-wh may also require knowledge of a set of propositions. For (3) to be true Bernard needs to know of all of the people who got married in Chichester this year that they did so. We can also use knowledge-wh mark knowledge of questions about what to do.⁵⁷ If (4) is true, then Jake knows that you ought to plant Strawberries between such-and-such dates. In general, it seems plausible that knowledge-wh is knowledge of the answer(s) to the contextually determined question, which comes out as knowledge of facts.⁵⁸

A basic point is that we might think that reflecting on knowledge-wh will help us shed light on knowledge how, since they are both species of knowledge ascribed using interrogatives.⁵⁹ Stanley and Williamson were by no means the first to make this point. Hintikka and Brown consider the relevance of knowledge-wh to knowledge-how, and argue that some knowledge-how is knowing the answer. However, both stop short of claiming that this analogy offers evidence against the distinction between knowledge-how and knowledge-that. Hintikka thinks that the 'skill' sense of 'S knows how to φ ' is non-reducible because it implies that S has the skills and capacities required to

⁵⁶ (Snowdon 2004 pp.5-6)

⁵⁷ (Brown 1970)

⁵⁸ (Karttunen, 1977)

⁵⁹ (Snowdon 2004, pp.5-6; 2011, p.59)

φ .⁶⁰ Brown thinks that the distinction between knowledge-that and knowledge-how comes down to a distinction between knowledge about what is the case, and knowledge about what to do.⁶¹

It is important to point out that the Anti-Intellectualist can also accept this analogy, because some knowledge how is obviously propositional. The dispute concerns only a sub-set of knowledge ascribed with 'know' + 'how', for which the puzzle about what is known arises. However it is true that the analogy suggests a way for the Intellectualist to offer an account of what you know when you know how. If we take the analogy with knowledge-wh seriously, then we might think knowing how is knowing the answer to the question "How to φ ?" just as knowing why to φ is knowing the answer to the question "Why to φ ?" This Intellectualist account is importantly different from Ryle's target, which seems to have been an Intellectualist who thought that knowing how was knowing what he calls 'regulative propositions'.

One further reason why we might be concerned with the linguistics of the sentences used to ascribe knowledge how is that Intellectualism and Anti-Intellectualism are committed to a semantic account of these sentences on the basis of their metaphysical pictures. Intellectualism claims that knowledge how relates agents to propositions, which on this line will be the answer(s) to the embedded question. By contrast, the Anti-Intellectualist treats knowing how as a special kind of knowledge which relates agents to activities. On her account, 'how' does not function as a question word, and is instead part of the constituent phrase, 'knows-how'.⁶² Considering just their views of the structure of ascriptions of knowledge-how, Intellectualism and Anti-Intellectualism endorse the following claims:

Intellectualism: S knows how to φ = S knows ('how to φ ?')

Anti-Intellectualism: S knows how to φ = S knows-how (to φ)

Stanley and Williamson's basic point is that accepted results in linguistics suggest that Intellectualism is true because best theories of the syntax and semantics treat knowledge-how as knowledge of the answer to an embedded question. I will now turn to the arguments which they offer for favouring their linguistic analysis of knowledge how ascriptions.

⁶⁰ (Hintikka 1975, pp.11-16)

⁶¹ (Brown 1970)

⁶² (Stanley and Williamson 2001, p.416-7) It is worth pointing out that both Ryleanism and Praxism hold the same syntactic picture, which may be part of an explanation why the two positions are often confused.

2.2. The Uniformity Argument

To turn the analogy of knowledge-how with knowledge-wh into an argument for Intellectualism, there must be a reason for favouring a uniform treatment of the knowledge underlying all embedded question ascriptions. Jason Stanley seems to think that there is an obvious reason to do so:

“It is a common assumption between the Rylean and the Intellectualist that sentences involving constructions like “know where + infinitive”, “know when + infinitive”, “know why + infinitive”, etc. all can be defined in terms of propositional knowledge. But given that ascriptions of knowing-how in English look so similar to such ascriptions, it is hard to see how they could ascribe a different kind of mental state. This provides a powerful argument in favor of the conclusion that our ordinary folk notion of knowing-how is a species of propositional knowledge.”⁶³

The basic thought seems to be that since there are no relevant differences between ascriptions of knowledge using the word ‘how’ and other question-words, and all knowledge-wh is propositional, it would be strange if the knowledge ascribed with the word ‘how’ was not propositional.⁶⁴

Stanley and Williamson point out that although some Anti-Intellectualists have appealed to the presence of the question ‘how?’ and the infinitival phrase in knowledge how ascriptions, neither of these features is sufficient evidence that the knowledge ascribed is non-propositional, given that each occurs in propositional knowledge ascriptions.⁶⁵ Consider the following examples:

- 5) Hannah knows whom Bill called for help yesterday (*embedded question*).
- 6) Hannah knows why to vote for Gore (*embedded question + infinitive*).
- 7) Hannah knows how Trotsky died (*embedded how-question*).

The presence of the embedded question does not indicate the presence of a kind of non-propositional knowledge, as we have seen that knowledge-wh ascribes propositional knowledge. (5) just means that Hannah knows that Bill called so-and-so for help yesterday. The presence of the infinitive is not decisive either: (6) says that Hannah knows that such-and-such are reasons why one ought to vote for Gore. There is also nothing special about the question ‘how?’ which entails that ‘know how’ should be treated as a constituent in the syntactic structure, since ‘how?’ occurs with

⁶³ (Stanley 2011a, p.208)

⁶⁴ (Stanley and Williamson 2001, pp.417-20), See also (Snowdon 2004. pp.6-8)

⁶⁵ (Stanley and Williamson 2001, p.417-19)

many other verbs, without combining with the verb and ceasing to act as a question-word (for example: 'wonder', 'asked', 'inquired'). It is also the case that there are many knowledge ascriptions using the word 'how' which are straight-forwardly propositional, such as (7). From the point of view of syntax then, there is no reason for treating 'knows how' as a special kind of knowledge ascription, rather than as a kind of interrogative knowledge on a par with knowledge-wh.

The similarity of knowledge-how with knowledge-wh is underlined by the possibility of substitution of a how-phrase for another wh-question and the possibility of conjunction of how and wh-questions. When one has knowledge which can be ascribed using 'know how', it will often be the case that one could also ascribe this knowledge using other question words. For example, when you know how to catch a ball, you have all kinds of knowledge of answers. You know whether the ball will fall ahead or behind of you, you know when to lift your hands and grasp the ball, and you know why to not snatch at the ball.⁶⁶ Knowledge how ascriptions are tied up with knowledge-wh. It is also possible to conjoin 'know how' with other question words, which offers further evidence that 'how' is functioning as a question word. For example, it sounds fine to say:

- 8) Make sure your whole family knows when and how to call emergency telephone numbers.⁶⁷

If know-how ascriptions were ascribing a kind of knowledge distinct from knowledge-wh, it would be difficult to see how substitution or conjunction could occur.

These are interesting results, since they undercut a linguistic motivation for Anti-Intellectualism. However, we might think that even if we think that there are no syntactic grounds for holding that knowledge-how is non-propositional, we could still hold that knowledge-how is non-propositional. For example, Adrian Moore makes extremely similar observations to Stanley and Williamson about the syntax of knowledge-how, but contends that there remain good philosophical grounds for thinking that there is a non-propositional species of knowledge.⁶⁸

The argument which Stanley and Williamson seem to be appealing to in order to turn the uniformity of knowledge how ascriptions into an argument for Intellectualism seems to be something along the following lines:

P1) Knowledge-wh ascriptions are ascriptions of propositional knowledge

⁶⁶ (Stanley 2011b pp131-3)

⁶⁷ (Stanley 2011a p.231)

⁶⁸ (Moore 1997, C8), (Williamson 1999)

P2) Knowledge-how ascriptions are relevantly similar to knowledge-wh ascriptions

P3) Relevantly similar ascriptions refer to the same type of entity

C) Knowledge-how ascriptions are ascriptions of propositional knowledge⁶⁹

The Anti-Intellectualist ought to agree on the fact that knowledge-wh ascribes propositional knowledge because of the plausibility of substituting knowledge-wh for knowledge-that (P1). The similar structures of know-how and know-wh are fairly clear in the syntactic structure of the relevant ascriptions, as well as in the possibility of conjunction and substitution so that (P2) cannot be easily controverted either.

The important question then, is why we ought to think that relevantly similar ascriptions should have similar analyses (P3). One reason for favouring a uniform account is that the presence of a uniform type of knowledge behind these ascriptions gives a nice explanation of the use of the uniform construction. By the Anti-Intellectualist's lights, the uniformity of the structure of ascriptions might seem to be an aberration since she thinks that some knowledge-how ascriptions refer to a completely different kind of knowledge. Another reason for favouring uniformity would be to appeal to the methodological principle that uniform linguistic constructions should (all other things being equal) be taken to be generated from a uniform underlying form.⁷⁰ This principle seems to be what Stanley and Williamson are appealing to when they say that their position ought to be the default account of knowledge how.⁷¹

It is worth pointing out that the uniformity argument might be used as a motivation for a number of different Intellectualist analyses, because it says nothing about what kind of answers someone who knows how knows.⁷², meaning that Stanley and Williamson have not yet provided us with an account of knowledge how.

2.3. The Compositional Argument

It is all very well to contend that the grammatical structure of the sentences used to ascribe knowledge how in English suggests that they ascribe knowledge of propositions, but this will not convince supporters of Anti-Intellectualism. A propositional account of knowledge how must be

⁶⁹ For an alternative reading of the uniformity argument which appeals to Stanley and Williamson's semantics for knowledge-wh, see (Glick 2011)

⁷⁰ (Glick 2009, p.33), (Bengson and Moffett 2011b, p.178-9)

⁷¹ (Stanley and Williamson 2001, p.431)

⁷² There are many who endorse the uniformity argument but have a different account of knowledge how to that which Stanley and Williamson put forward: (Snowdon 2004, 2011), (Glick 2009, 2011), (Brogaard 2011), (Braun 2011) and (Bengson and Moffett 2011b).

philosophically adequate. Stanley and Williamson fill out the analogy with knowledge-wh by appealing to the semantics of embedded questions to get an account of what work the 'how' clause does, which they use to propose an account of knowledge how.

According to contemporary linguistics, the schematic phrase 'S knows how to φ ' has the following structure:

9) S knows [how PRO to φ t]

Where brackets signal a clausal boundary, PRO is an unpronounced pronoun and t is the trace of movement left by the movement of the question word. In this picture, the complement clause of knowledge is an embedded question ('how to φ ?') which according to standard accounts of the semantics of questions, denotes the set of its true answers.⁷³ Stanley and Williamson's original contribution which goes beyond Brown and Hintikka's considerations of syntax is to propose that a semantic analysis of this embedded question will shed light on what it is that we know when we know how to do something.

In order to do this, they need to be able to offer an interpretation of the three elements of the embedded question: the question-word 'how', the unpronounced pronoun, and the infinitive.

It is fairly intuitive that different question-words pick out different kinds of answers: 'where?' quantifies over places, 'who?' over people, 'why?' over reasons and so on. Stanley and Williamson claim that the question 'how?' quantifies over ways, as in the questions: 'how did he look?' 'how do you get there?'⁷⁴ They claim that in relation to infinitives such as those which we find in the interesting class of knowledge-how ascription, 'how?' quantifies over ways of engaging in actions. They flesh out this contention by accepting a Davidsonian account of adverbs of action which construes a way of engaging in an action as a property of the token event which is an agent's doing something.⁷⁵ So, the question-word 'how' restricts our attention to ways of engaging in actions, which for Stanley and Williamson are properties of token events.

The interpretation of PRO and the infinitive are a little more difficult as each element can function in two ways. When PRO occurs in an untensed clause outside of an embedded question, it refers back to the subject of the main clause, but in untensed clauses in embedded questions it can be also read in an arbitrary fashion, akin to 'one'. Take the following examples:

⁷³ Stanley and Williamson are careful to stress that their account does not rely on any particular account of the semantics for questions (Stanley and Williamson 2001) uses Karttunen's framework, and (Stanley 2011a, 2011b) switches to Groenendijk and Stokhof's more austere account.

⁷⁴ This is not strictly true, as the 'how' can be used to refer to measurements. (Brogaard 2011)

⁷⁵ (Stanley and Williamson 2001, p.427), (Stanley 2011b p.58), (Davidson, 1967)

10) Hannah_i wants PRO_i to behave

11) John knows how PRO_{arb} to behave at a funeral

Whereas PRO in (10) can only be read as referring back to Hannah, in (11) the arbitrary reading of PRO is available. What John knows is how to behave oneself at a funeral.⁷⁶

Infinitives can also be interpreted in two ways, as expressing either conditional or deontic modal force. Consider:

12) Hannah wondered where to find an Italian newspaper

13) John asked his host where to sit

In (12), Hannah is wondering where she could get an Italian newspaper. By contrast, in (13) John's question is not where he *might* sit, which is presumably obvious to him, since he can see the chairs around the table, but where he ought to sit. What he wants to know is where the host has decided to put him.

These different readings offer four interpretative possibilities for infinitival embedded questions, which Stanley and Williamson then apply to knowledge-how ascriptions, obtaining the following possible analyses of the generic 'S knows how to φ ':

	Deontic force	Possibility force
PRO-referring to subject of main clause	S knows how she ought to φ (a)	S knows how she could φ (c)
PRO-referring to arbitrary person	S knows how one ought to φ (b)	S knows how one could φ (d)

They rightly point out that intuitively the deontic readings, (a) and (b) ascribe propositional knowledge, and therefore focus in on (c) as giving the paradigm reading for know-how ascriptions, presumably assuming that this reading can be simply extended to (d).

Putting the interpretation of the question 'how?' together with reading (c), Stanley and Williamson claim that the embedded question [How PRO to φ t] ranges over ways in which the subject of PRO could φ . Going back to our example of the problematic kind of know-how, according to Stanley and Williamson, 'S knows how to ride a bicycle' should be understood as: S knows ways in which she could ride a bicycle.

⁷⁶ (Stanley and Williamson 2001), (Brown 1970)

This leads us onto a final difficulty in the interpretation of embedded questions. As we saw with example (3), some embedded questions have a ‘mention-some’ reading, relating the agent to just one answer to the embedded question, whereas others have a ‘mention-all’ reading, in which the agent is related to *all* of the contextually relevant answers to the question.⁷⁷ Stanley and Williamson argue that typical know-how ascriptions will have the mention-some reading, as it is sufficient for normal communicative purposes to inform others that the agent knows some way of doing something.⁷⁸

Putting these considerations together we get the following interpretation of the schematic knowledge-how ascription:

(S&W1): S knows how to φ if and only if for some contextually relevant way, w , which is a way for her to φ , she knows that w is a way for her to φ .

2.4. Extensions to the Account

Stanley and Williamson are keen to point out that their account is not simply suggested by results in linguistics, but is also able to explain all of the features of knowledge how which have led philosophers to claim that it is a special kind of knowledge. In order to do this, they propose a number of extensions to their account to deal with some relevant differences between knowledge how and central examples of propositional knowledge.⁷⁹ I will focus in on three extensions which make significant differences to their account.

2.4.1. The Expression of Knowledge How

The initial concern which I used to motivate interest in knowing how was the tension between the intuitive idea that when you know, you know something, and the fact that in central cases of knowledge how, agents cannot provide satisfying gloss on what it is that they know. Stanley and Williamson have offered us an account the object of knowledge how, but their account will be somewhat implausible without an account of how this knowledge can be expressed.

A first point is that it would be too demanding to expect full and precise linguistic expression from knowledge how. There are plentiful examples of knowledge-that, where an agent can only express her knowledge using indexicals or demonstratives. I might be unable to describe the precise location of my pain but still know that it hurts *here*. Stanley and Williamson claim that the

⁷⁷ (Hintikka 1975 p.421), (Groenendijk and Stokhof 1982)

⁷⁸ (Stanley and Williamson 2001, p.426). As we shall see below (§5.2.) Stanley changes his mind on this.

⁷⁹ Stanley and Williamson 2001, pp.432-41)

problematic kind of knowledge how will similarly be expressed using demonstratives.⁸⁰ To make this plausible, they offer an example of knowing of how other people act. For example, if Hannah rides a bicycle in a particularly strange manner, I might express my knowledge of how Hannah cycles by saying “Hannah cycles like *that*,” whilst pointing at her cycling, without needing to describe her performance in precise linguistic terms. They claim that in this kind of demonstrative reference, the speaker uses the mechanism of deferred reference to exploit the presence of a sample which instantiates a property to refer to the property itself. By pointing to a stretch of Hannah’s strange cycling, I can successfully refer to the strange way in which she cycles itself, just as I can use a sample of a colour to refer to the colour itself when I say “my mother hates *that* colour.”⁸¹

If this mechanism of deferred reference works in the case of knowing how someone else does something, it can presumably be used by an agent to express her knowledge of how to do various things. In a sense this is just the intuitive point that we can sometimes show our knowledge rather than expressing it. To illustrate this point Stanley gives the example of a punch-drunk boxer, temporarily unable to describe or explain his way of beating a southpaw, expressing his knowledge-how by saying “*this* is the way I fight against a southpaw,” and then demonstrating the way by engaging in that way of fighting.⁸² The thought is that we can, in general, express our knowledge of how to do things by pointing at ourselves while engage in the appropriate activity and saying something along the lines of “*this* is my way of φ -ing,” which thereby identifies the way in which we are φ -ing by deferred ostension.

Although their account of the expression of knowledge how is not foregrounded in their initial discussion, the success of deferred ostension is important for their view, since expressibility is a central feature of propositional knowledge, and the appeal to deferred ostension is the only response which they have to a sceptic who offers cases in which it is in question whether the agent possesses knowledge of ways.

2.4.2. Practical and Non-Practical Knowledge-How

One worry we might have about Stanley and Williamson’s account of knowledge how is that it over-unifies the class of knowledge ascribed with the words ‘know’ + ‘how’. Literally interpreted (S&W1) claims that there are no important epistemological differences between knowing how to cycle and knowing how Trotsky died. But there is surely some distinction here: one is a kind of

⁸⁰ (Stanley and Williamson 2001, pp.432-433)

⁸¹ (Stanley and Williamson 2001 p.428 footnote 29) Vendler also points out that the recourse to demonstratives occurs in other cases of knowledge-wh, for example knowing what coffee tastes like (Vendler 1972 p.104)

⁸² (Stanley 2011a p.215, 2011b pp.161-63)

knowledge which we find philosophically problematic; the other not. What Stanley and Williamson need is an account of which kind of proposition is in play when we know how to do something to distinguish knowing how from other kinds of propositional knowledge.

Presumably part of the answer to this concern is that Stanley and Williamson think that knowing how to φ is not just knowing that my φ -ing has certain properties, or is done in a certain manner. Knowing that my way of walking is slowly is presumably not the relevant kind of knowledge how. Rather we are interested in knowing a *method* for doing something; the way in which I can engage in some action. This point is slightly obscured by the example of knowing that Hannah rides a bicycle in a funny way, in which the way known is not a method but a style of acting, but in later work Stanley is clearer that he has knowledge of method or procedure in mind. For example in discussing Hawley's account of showing how, Stanley observes:

"If someone shows me how to do something, before I learn how to do it from their demonstration, I must acquire a practical way of thinking of that method of doing it."⁸³

The restriction to knowledge of methods will not do all of the work needed, however because someone could know a method without knowing how in the relevant sense. Someone who has read a manual knows the methods by which one can engage in various skateboarding tricks, but they do not yet know how to skateboard in the relevant sense.

Stanley and Williamson flesh out the special character of the interesting kind of by constructing a case for a special mode of presentation. They point out that it is possible for an agent to know a way of doing something, but not know how to do it. Consider the following two sentences:

14) Hannah knows that *that* way is a way for her to ride a bicycle.

15) Hannah knows how to ride a bicycle.

If Hannah has not learnt to cycle but is watching John cycle, then (14) will be true but (15) false. Since the embedded clauses in these sentences express the same proposition under Stanley and Williamson's analysis,⁸⁴ an explanation of the difference in the truth value of the sentences needs to appeal to the proposition in question being entertained under two different moves of presentation. According to Stanley and Williamson, in (14) the proposition that a certain way is a

⁸³ (Stanley 2011b p129)

⁸⁴ If ways are finely-grained (see §5.2.), then the propositions known in these cases will not be the same because ways of acting will be indexed to different peoples' bodies. One could get round this by constructing a case in which Hannah has forgotten how to cycle, and she is shown a video of herself cycling.

way to cycle is being entertained under a demonstrative mode of presentation, whereas in (15) it is being entertained under what they call a *practical* mode of presentation.

They are quite sketchy about what they take practical ways of thinking or propositions to consist in, seeming happy to contend that Frege puzzles such as that arising from (14) and (15) provide an existence proof for them.⁸⁵ We might worry that this sketchiness about the notion of a practical mode of presentation makes their account rather vacuous, since it includes a non-trivial unexplained term.⁸⁶ They try to put this worry to one side by pointing out that their purpose is not to reductively analyse knowledge how in purely propositional terms, but to show that all knowledge-how is knowledge-that; that whatever knowledge we have when we know how, is propositional. In a sense, they agree with Brown that there is a distinction between two kinds of propositional knowledge: normal knowledge of propositions and knowledge of propositions associated with practical ways of thinking.

Adding the practical mode of presentation into their account of knowledge how, we get the following analysis:

(S&W2): S knows how to φ if and only if for some contextually relevant way, w , which is a way for her to φ , there is a practical mode of presentation m , such that she knows under m that w is a way for her to φ .

2.4.3. Knowing How to Act

Another feature of knowledge how which we might use to put pressure on Stanley and Williamson's account is the Rylean idea that knowledge how is directly exercised in action. If we take Ryle's discussion of the role of knowledge how seriously, then we will think that an Intellectualist account ought to be able to offer an account of how to stop Ryle's regress, and should explain the connection between knowledge how and practical intelligence.

To stop Ryle's regress, they appeal to Ginet's point that propositional knowledge can be exercised in action without a distinct act of contemplation:

"I exercise (or manifest) my knowledge *that* one can get the door open by turning the knob and pushing it (as well as my knowledge *that* there is a door there) by performing that

⁸⁵ (Stanley and Williamson 2001, p.429), (Stanley 2011b, pp.122-130), for criticism of this argument see (Noë 2005 pp.297-88)

⁸⁶ (Koethe 2002), (Rosefeldt 2004), (Sgaravatti and Zardini 2008)

operation quite automatically as I leave the room; and I may do this, of course, without formulating (in my mind or out loud) that proposition or any other proposition.”⁸⁷

The thought here is that propositional knowledge is frequently exercised in action, without the agent needing to consider the content of this knowledge, meaning that Ryle’s argument against the Intellectualist fails to get off the ground. This consideration is also apt to be seen as a general account of how knowledge is put into action. For example, Stanley counters Ryle’s discussion of the Intellectualist’s need for a ‘schizophrenic broker’ to connect knowledge of propositions with action with the claim that propositional knowledge can be put into action by automatic, domain-general modular systems of triggering representations.⁸⁸

In order to explain the connection between knowledge how and intelligent action they appeal to the connection between first-person knowledge and dispositions to act. Stanley and Williamson claim that:

“Thinking of a person as oneself entails being disposed to behave in certain ways, or form certain beliefs, given relevant input from that person. Similarly thinking of a place as *here* entails being disposed in certain ways, or form certain beliefs, given relevant input from that place. Analogously, thinking of a way under a practical mode of presentation undoubtedly entails the possession of certain complex dispositions. It is for this reason that there are intricate connections between knowing how and dispositional states.”⁸⁹

Here the idea seems to be that the dispositions which Ryle relates to knowing how are real but are grounded in and explained by knowledge of ways under a practical mode of presentation. Just as thinking of an object as myself readies me to do certain things, thinking of a method as a way to do something readies me to use that method when it is appropriate to do so.⁹⁰

2.5. Conclusion

In this section, I have set out two arguments for Intellectualism, which Stanley and Williamson present as offering justification for their account of knowledge how. The uniformity argument appeals to the syntactic uniformity of knowledge how with knowledge-wh to argue for an Intellectualist treatment of knowledge how. The compositional argument is more positive, putting forward an account of knowledge how taking off from the compositional semantics of knowledge how ascriptions. From these arguments Stanley and Williamson propose a number of extensions,

⁸⁷ (Ginet 1975, p.7) quoted in (Stanley and Williamson 2001, p.415)

⁸⁸ (Ryle, 1945), (Stanley 2011b pp.16, 18, 26)

⁸⁹ (Stanley and Williamson 2001, p.429)

⁹⁰ See also (Stanley 2011b, pp.98-110, 182-3)

which aim to explain those features of knowledge how which are on the face of it tricky for the Intellectualist to account for. In the next section, I will consider Stanley and Williamson's use of evidence from syntax and semantics, and consider whether linguistics is an appropriate tool to solve philosophical problems.

3. Assessing Linguistics-First

We have seen that Stanley and Williamson offer two arguments for Intellectualism, which rely heavily on the claims which contemporary linguistics makes about ascriptions of knowledge with an interrogative clause. Such reliance on linguistics in giving both the evidential ground and philosophical detail of a view is unusual, a point of which they are aware of, but which they seem to think counts in their favour. In summing up their view they say:

“We take our view of ascriptions of knowledge-how to be the default position. From a linguistic perspective, very little is special about ascriptions of knowledge-how. It is hard to motivate singling them out for special treatment from the rest of a family of related constructions. Our view of ascriptions of knowledge-how is the analysis reached on full consideration of these constructions by theorists unencumbered by relevant philosophical prejudices.”⁹¹

There are a couple of points in this quote which demonstrate the extent to which Stanley and Williamson’s project self-consciously rests results from linguistics. They describe their analysis as a view of *ascriptions* of knowledge-how, not of knowledge how itself. Doing this presumably means that they think that the way we ascribe knowledge offers a clear picture of the nature of the knowledge in question. In a similar vein, they claim that their analysis ought to be the default view of knowledge how because it is reached by consideration of the views of linguists lacking in philosophical baggage. They seem to be proposing that a legitimate way of giving an account of some phenomenon is to consider the results from linguistics first, and then only supplement or revise these views if the linguists’ views break down and require special philosophical treatment. We might call this approach a *Linguistics-First* approach to philosophy. Whereas many philosophers start inquiry by considering language to get a grip on the terms of inquiry, on this approach results from linguistics can equally mark the end of inquiry, because it can offer sufficient evidence to settle the question of then nature of the phenomenon under discussion.⁹²

In this section, I will consider the relevance of the linguistic evidence to knowledge how, as a way of assessing whether linguistics-first is a legitimate approach. In the first section I will consider some prominent criticisms of Stanley and Williamson’s methodology from both philosophical naturalists who think that they neglect empirical evidence, and sceptics about the linguistic evidence, and sketch out Stanley’s defence of Linguistics-First. With this defence in mind, in the second and third sections I will turn to the compositional and uniformity arguments to assess what

⁹¹ (Stanley and Williamson 2001, p.431)

⁹² (Devitt 2011a).

support **(S&W2)** can legitimately claim from the linguistics literature. A key claim of the compositional argument is that **(S&W2)** is *entailed* by the correct semantics for knowledge how ascriptions. The claim of entailment is overblown: the analysis relies on various controversial philosophical assumptions in both setting up and defending the account. Despite these controversial commitments, their account might still be defensible if the uniformity argument entails the truth of Intellectualism, and their analysis is the most defensible version of that view. However, the uniformity argument is also controversial, since focusing on the linguistic uniformity of knowledge-how with knowledge-wh ignores relevant differences between the two kinds of knowledge. This combination of linguistic similarity and non-linguistic difference can be adequately explained by a range of positions.

3.1. Naturalistic Scepticism

Alva Noë and Michael Devitt are clearest in setting out the Naturalistic challenge to Stanley and Williamson's methodology.⁹³ They claim that Stanley and Williamson miss the point of the question about the nature of knowledge how because language is not relevant to philosophically significant questions about the nature of the mind.

Noë seems to think that Stanley and Williamson have radically confused the nature of the problem, countering Ryle's proposal about the nature of knowledge how with a counter-proposal about the nature of the sentences which we use to ascribe knowledge how. He contends that:

"The biggest problem with [Stanley and Williamson's methodology] is that it directs our attention to considerations about language (how people talk), when theorists of mind (in philosophy or cognitive science) are interested in human nature and the nature of mind."⁹⁴

If the question they are answering is one about language, then according to Noë, Stanley and Williamson have missed the point of Ryle's discussion, which is about the nature of the mind, and not how we describe the mind. This is not to say that he thinks that Intellectualism is a trivial view: he points out that it is a "well-entrenched framework for the study of the mind, especially in linguistics and developmental psychology."⁹⁵ It is just that if Stanley and Williamson are attempting to show that the substantive thesis about the mind is true, they ought to look to the philosophy of mind and empirical science, rather than just to the structure of language. Noë suggests that an Intellectualist approach to the mind will not be successful, because it will ignore the situated

⁹³ Although there are others who implicitly make a similar methodological move by considering empirical evidence against **(S&W2)**. See (Bzdak 2008), (Wallis, 2008), (Toribo 2008), and (Adams 2009)

⁹⁴ (Noë 2005, p.288)

⁹⁵ (Noë 2005, p.278)

embodied, and phenomenological aspects of practical intelligence, and suggests that a situated approach to cognition is better suited to account for the nature of knowledge how.⁹⁶

Devitt agrees that Stanley and Williamson's approach to the nature of knowledge how is methodologically backward, describing it as putting linguistics before considerations of how the world is; a move which he considers to be inappropriate given our greater knowledge of the world than of language.⁹⁷ He claims that a naturalistic interest in knowing how should be concerned with the way in which it is pertinent to psychological explanation. To make this point, he observes that there seems to be a substantive explanatory gap between knowledge-how and knowledge-that in empirical science. Cognitive ethologists often ascribe knowledge how to species to which they would not ascribe knowledge of propositions (a point also made by Noë in discussing animal know-how), and psychologists make a theoretically significant distinction between procedural and declarative knowledge, which Devitt claims matches up with the distinction between knowledge-how and knowledge-that.⁹⁸

The general point of the naturalistic sceptics is that Stanley and Williamson confuse the significance of the question which they are addressing, and in so doing ignore the importance of other evidence which might be brought to bear on the question of the nature of knowledge how, especially that from the philosophy of mind and empirical science.

3.2. Scepticism about Language

Sceptics about language take a more negative approach, arguing that Stanley and Williamson's methodology is not decisive because appealing to language is not sufficient to resolve the philosophical issue, either because of the problem of cross-linguistic diversity, or the failure of language to accurately represent the world.

Ian Rumfitt points out that although Stanley and Williamson have located some knowledge-how ascriptions in English which the best semantic theory construes as relating knowers to embedded questions, there are other languages in which knowledge-how ascriptions do not obviously come out as relating the knower to an embedded question.⁹⁹ In French, for example, there are two constructions for ascribing knowledge how: the embedded question construction which Stanley and Williamson discuss [verb + question word + infinitive] and the direct infinitival

⁹⁶ (Noë 2005, pp.284-5), on situated cognition see (Robbins and Aydede 2008).

⁹⁷ (Devitt, 2011a, 2011b)

⁹⁸ (Devitt 2011a pp.208-13, 2011b), (Noë 2005, pp.288-89)

⁹⁹ (Rumfitt 2003)

construction [verb + infinitive], which their analysis does not obviously apply to, since it does not involve an interrogative.

For example, we might say of Pierre when he has learnt a way to cross over a particular river:

- 1) *Pierre sait comment traverser le fleuve en nagent*

Pierre knows how to cross the river

Whereas if we wanted to say that he just knows how to swim, we would say:

- 2) *Pierre sait nager*

Pierre knows how to swim

Rumfitt points out that this distinction is not merely down to a superfluity of grammatical constructions, because there is a systematic difference in perceived meaning between “il sait nager,” and “il sait comment nager,” meaning that sentences like the first cannot be construed as shorthand for the second. French is not a linguistic outlier in this matter: Romance languages generally have a non-interrogative construction for ascribing practical knowledge, and some languages – notably Russian – reserve a different intellectual verb for that construction. This difference in construction, and perhaps also in meaning also shows up in English with ‘learn’. We say both that someone “learnt to ride a bicycle,” and that they “learnt *how* to ride a bicycle.”¹⁰⁰

Rumfitt’s point is that if linguistic data, and in particular the best contemporary semantic theory *is* relevant to philosophical issues, then given the existence of the different grammatical constructions for knowledge how ascriptions the evidence for Intellectualism is mixed.¹⁰¹ Although there are many know-how ascriptions to which contemporary semantics gives a propositional treatment, there are many to which it would not. Rumfitt raises the possibility that the best way of explaining these two constructions would be to posit an ambiguity in knowledge how ascriptions between propositional and activity-relating knowledge.¹⁰² His point about cross-linguistic diversity in construction could also be seen as making the broader methodological point that treating evidence from linguistics as decisive evidence in philosophical disputes runs the risk of importing accidental features of a language into a philosophical account.¹⁰³

¹⁰⁰ (Glick 2012). See also (Wiggins 2012, §20-21) for a philosophical distinction between these two kinds of knowledge how in English.

¹⁰¹ (Rumfitt 2003, p.160)

¹⁰² (Rumfitt 2003, p.165)

¹⁰³ This point is also made by (Craig 1990, C.XVII) in considering the cross-linguistic evidence.

Barbara Abbott expresses a more direct methodological scepticism about the use of language by pointing out that the use of linguistic evidence to solve philosophical problems has a number of systematic problems.¹⁰⁴ Firstly, linguistic evidence on some matter may not be fully clear, because linguists are not agreed on the terms of analysis, or the significance of the data. Although Stanley and Williamson claim to take standard results in linguistics, there are a number of linguistic grounds for questioning the specifics of their view.¹⁰⁵ Secondly, language is efficient, in that it uses the same grammatical constructions to express a number of different relations. For example, that-clauses are fairly all-purpose, being used to refer to facts, propositions, events and utterances. This efficiency means that it would be naïve to think that grammatical constructions are entirely transparent to the entities to which they refer.¹⁰⁶ Thirdly, language may actually misrepresent the world. Although the distinctions which occur in language are likely significant, there is no reason to suppose that we must not introduce new distinctions to capture the relevant features of the world. For example, the word ‘pain’ plausibly expresses two distinct states: emotional pain and physical pain, which we cannot distinguish on merely linguistic grounds.¹⁰⁷ Presumably, part of the job of empirical science is to introduce such new terminology to add distinctions to language when it makes a mistake like this.¹⁰⁸

Whereas the naturalistic sceptics point out the importance of evidence other than that from language, Rumfitt and Abbott question the reliability of linguistic evidence itself, given cross-linguistic diversity, and the fact that language is not transparent to the entities which it refers to.

3.3. Stanley’s Defence of Linguistics First

In *Know How*, Stanley tries to assuage the worries of both kinds of sceptic. In response to the naturalistic sceptic, he sets out what he takes to be the connection between knowledge how ascriptions and knowledge how itself, and argues that his account is compatible with the relevant empirical evidence. In response to the data from other languages, he argues that it is possible to give a semantics for the French [know + infinitive] construction which is compatible with his variety of Intellectualism.

In response to the naturalist’s charge that the linguistics-first methodology misses the point by focusing on language rather than the world, Stanley points out that the linguistics literature can

¹⁰⁴ (Abbott 2006)

¹⁰⁵ See (Michaelis 2011), (Ginzburg 2011). More seriously, there are linguists who are sceptical about the notion of PRO, which is central to Stanley and Williamson’s account (Abbott 2006 p.4)

¹⁰⁶ (Michaelis 2011)

¹⁰⁷ (Glick 2011, p.406)

¹⁰⁸ (Abbott 2006 pp.9-10), (Brown 2013)

be read as a contribution toward metaphysical inquiry, just as philosophical accounts of the nature of states can be read as contributions to the linguistics literature.¹⁰⁹ Excepting cases of context-dependence or self-reference, the schema [“S” is true if and only if S] holds true, meaning that an analysis of a class of ascriptions can be read as an account of the nature of the states which they refer to, and vice versa. As Stanley points out “discussions of semantics are often in fact discussions of metaphysics carried out in the formal mode.”¹¹⁰ Since we can read off metaphysical claims from the semantics literature, according to Stanley, Noë’s charge that using linguistic evidence changes the question to one about language is baseless. This defence of the methodology also seems to be aimed at Abbott’s scepticism about the clarity of language. According to Stanley, we can gain insight into the folk concept of knowledge how by doing the compositional semantics, which is then the basis for the scientific inquiry into knowledge how.¹¹¹

In response to the specific empirical concerns which Devitt and Noë raise, Stanley claims that the cases which they draw attention to raise pose no problem for **(S&W2)**.¹¹² According to Stanley, it is quite compatible with this account that the knowledge how possessed by non-human animals and the knowledge ascribed by psychologists under the head of procedural knowledge is just propositional knowledge.¹¹³ It just is a different kind of propositional knowledge from the examples which have been central in the philosophical literature. Certainly it is not accessible to consciousness, subject to the KK principle, or fully expressible in language; in his view, so much the worse for these features as necessary conditions on knowledge.¹¹⁴ On Stanley’s view, propositional knowledge does not require the features of the traditional conception of propositional knowledge (see §1.1). Rather, on his view propositional knowledge is just the possession of information together with the ability to use that information to guide action.¹¹⁵

In response to the data from French, Stanley offers a semantic analysis for the relevant construction which is consistent with his account of knowledge how.¹¹⁶ According to Stanley, the problem with the [know + infinitive] construction for **(S&W2)** is that it ascribes knowledge how but

¹⁰⁹ (Stanley 2011b, pp.143-9)

¹¹⁰ (Stanley 2011b, p.144)

¹¹¹ (Stanley 2011b, pp.146-49)

¹¹² (Stanley 2011a pp.212-15; 2011b pp.132-35, 150-74).

¹¹³ (Stanley 2011b, p.132-5)

¹¹⁴ (Stanley 2011b, pp.163-7)

¹¹⁵ Stanley claims in the introduction to *Know How* that one of the key themes of the book is to set right assumptions about the nature of propositional knowledge, but has very little positive to say. In a symposium on the book, Stanley addresses this lacuna by endorsing Robert Stalnaker’s claim that “In general, propositional knowledge is the possession of information and the capacity to use that information to guide one’s actions,” as a gloss of his view of propositional knowledge. (Stalnaker 2012), (Stanley 2012a). See also (Glick 2011).

¹¹⁶ (Stanley 2011a 226-30; 2011b pp.135-43)

does not have the embedded question construction, on which Stanley and Williamson base their account. To offer an analysis of the [know + infinitive] construction, Stanley posits two unpronounced elements in the construction: an unpronounced pronoun, PRO, and a free variable, x , which ranges over ways of acting. This gives the following structure for the problematic *savoir faire* construction:

3) Pierre _{i} sait PRO _{i} *nager* x

Where PRO refers back to the subject of the main clause, and *nager* is read as expressing conditional modality along the lines of analysis (c) we get something like the following analysis:

4) “Pierre sait *nager*” is true if and only if Pierre knows that he can swim in way x ¹¹⁷

Which is clearly an ascription of propositional knowledge. Stanley then offers a number of possible explanations for the felt difference in meaning between ‘*savoir faire*’ and ‘*savoir comment faire*’, appealing to pragmatic or semantic factors, the details of which will not concern us.¹¹⁸ In summing up, Stanley observes that:

“It is simple to give the embedded question semantics for languages in which knowledge how is expressed with a bare infinitive. Even if we take the apparent structure of language such as French at face value, where “*savoir*” takes an infinitive complement, one can easily give my favoured account of the meaning of ascriptions of knowing how.”¹¹⁹

Having sketched out the state of the dialectic about the methodology used in defence of (S&W2), I will now turn to the compositional and uniformity arguments, and assess how the critical points we have discussed above affect the force of these arguments.

3.4. The Compositional Argument

In places, Stanley and Williamson make it sound like their view is simply obviously true when one considers the syntax and semantics of knowledge how ascriptions. For example, Stanley claims that:

“A straightforward application of the standard application of the standard syntax and semantics for embedded questions yields the above account [S&W2] of knowing how.”¹²⁰

¹¹⁷ This is an informal version of Stanley’s analysis, which uses Groenendijk and Stokhof’s theory of questions, the complexities of which do not concern us here. (Stanley 2011b, p.139)

¹¹⁸ (Stanley 2011b, pp.139-140)

¹¹⁹ (Stanley 2011b, p.139)

¹²⁰ (Stanley 2005 p.3)

While it is true that their account is suggested by the standard syntax and semantics of embedded questions it is both false and misleading to claim that **(S&W2)** is simply entailed by views in linguistics.¹²¹ False, because the analysis includes the idea of a practical mode of presentation, which has absolutely no basis in linguistics, and misleading, because in general compositional semantics must be interpreted within a philosophical picture to yield a metaphysical analysis of the entities referred to.

The idea that their analysis is that which might be arrived at by unencumbered linguists draws our attention away from the philosophical assumptions which they make in settling up their picture. Stanley and Williamson are by their own admission not actually giving an account of *all* know-how ascriptions, but only of the practical kind of knowledge how which Anti-Intellectualists are interested in. In order to pick out this class of ascriptions, they need to offer an account of what distinguishes it from other kinds of knowledge ascribed with the words 'know' + 'how'. They need the idea of a practical mode of presentation in order to mark out this class of knowledge, but this condition on their analysis is explicitly philosophical in nature.

Even with the restriction to the special mode of presentation in place, it is not possible to just remove the quotation marks and get an account of the knowledge in question, because in general semantics must be interpreted within a philosophical picture to get to a metaphysical analysis. This is certainly true of **(S&W2)**. In interpreting the semantics of the how clause, they rely on a Davidsonian picture of adverbs, which commits them to a whole host of assumptions about the nature of agency, and how adverbs function. Similarly in choosing between a mention-all and mention-some reading of the embedded question, they appeal to philosophical considerations about communicative purposes.¹²²

Additionally, they think that establishing that the complement clause of know-how is a proposition is sufficient to establish that the relation is a propositional-knowledge relation.¹²³ Although this assumption might make sense if we think that knowledge is the most general factive mental state,¹²⁴ or take Stanley's austere picture of propositional knowledge, it could easily be challenged by proponents of the traditional conception of propositional knowledge. The importance

¹²¹ "Its [S&W2] most obvious benefit is that it is the account entailed by current theories about the syntax and semantics of the relevant constructions." (Stanley and Williamson 2001, p.440)

¹²² On the significance of this difference see §5.2. below.

¹²³ They do attempt to show that knowledge how is 'Gettierisable', (Stanley and Williamson 2001, p.435) but the example that they give is unclear, partly because know how does not seem to collapse into mere true belief under the pressure of luck, and partly because it is not clear that the subject fails to possess knowledge how. (Poston 2009, p.744), (Cath 2011)

¹²⁴ (Williamson 2001)

of this picture of propositional knowledge is underlined when we notice that it is also required for Stanley's claim that procedural and animal knowledge is propositional, since neither species of knowledge possesses any of the properties of the traditional conception.¹²⁵

They also assume a certain picture of the exercise of propositional knowledge in taking on Ginet's point that knowledge can be put into action without conscious consideration. As I pointed out above, this appeal is not simply a point against Ryle's regress argument; it is a general account of how knowledge is put into action. Stanley makes the commitments of this idea particularly clear by explicitly appealing to the Fodorian idea that knowledge is put into action by modular mechanisms.¹²⁶ Assuming that knowledge is put into action automatically brings with it a host of assumptions about its role in mental life.

These philosophical assumptions about the nature of the mind and knowledge are required to get their favoured account of knowledge out of the semantics, and render it plausible, but they load their view down with philosophical commitments and show that their view is not simply entailed by results from linguistics. These assumptions could easily be challenged by an Anti-Intellectualist, particularly given that the Davidsonian and Fodorian pictures of the mind might be thought to have Intellectualist assumptions built in to them. For example, the Davidsonian picture of adverbs endorses the idea that action is an effect of intellectual operations, which is exactly what Ryle is arguing against,¹²⁷ and a Fodorian picture of modularity might be thought to bring with it a computational picture of the mind.

Since analyses derived from compositional semantics are not independent of philosophical assumptions, and surface structure need not be the final word in analysis, we might well ask whether an Anti-Intellectualist semantics for knowledge how ascriptions could be solely motivated by philosophical considerations. If Stanley does not tie his account to the 'apparent structure of language' then the Anti-Intellectualist need not either.

Stanley's appeal to the truth schema certainly answers Noë's charge that an analysis of know-how ascriptions misses the point, but it says nothing about in which direction we ought to read the truth schema.¹²⁸ Stanley and Williamson read it from left to right, going from linguistics to

¹²⁵ One interesting question is whether knowledge how has other properties which Stanley claims propositional knowledge to have. In other works, Stanley claims that knowing is an interest-relative relation, depending on a subject's practical interests. It would be difficult to see how to construct a case in which knowledge how varies depending on the practical stakes. Thanks to Corine Besson for discussion on this point. (Fantl 2008, footnote 25) (Stanley 2005), (Hawthorne and Stanley 2008)

¹²⁶ (Fodor 1983)

¹²⁷ (Hornsby 2011 pp.96-81)

¹²⁸ (Brown 2013)

metaphysics via the philosophical assumptions detailed above, but it is equally legitimate to read the schema from right to left, motivating a linguistic analysis by a philosophical claim. In fact, Stanley himself does this in motivating his semantics for the *savoir faire* construction.¹²⁹ To challenge Stanley and Williamson's analysis of knowledge how, one need not be a sceptic about the relevance of language to philosophical issues; one must simply be willing to revise the semantics offered by linguistics in some cases, in response to non-linguistic sources of evidence.

It certainly would be a worry if there were no possible semantics for knowledge how ascriptions which were compatible with the Anti-Intellectualist's account,¹³⁰ but there are several possible analyses available. One option is to follow Rumfitt's suggestion that knowledge-how ascriptions in English are ambiguous between a propositional and activity-relating form of knowledge.¹³¹ This view seems to be fairly clearly suggested by the observation of the cross-linguistic distinction between the different grammatical constructions for ascribing knowledge how.¹³² Certainly, this account would require a somewhat revisionary account of the syntax and semantics of some English know-how ascriptions, but if it is legitimate for Stanley to offer revisionary semantics, then it is legitimate for the Anti-Intellectualist to do so too.

Rather than being a point in their favour, the interdependence of linguistic and philosophical considerations in fact plays against Stanley and Williamson's account. Noting how many philosophical assumptions they make in their account of knowledge how opens up fresh lines of criticism, and weakens Stanley and Williamson's grounds for claiming that **(S&W2)** is entailed by the relevant syntax and semantics. This interdependence also raises the possibility of the Anti-Intellectualist motivating accounts of the semantics of knowledge how ascriptions from purely philosophical considerations.

3.5. The Uniformity Argument

Whether or not the compositional semantics given by linguists ought to be a decisive form of philosophical evidence, Stanley and Williamson can nonetheless claim support from the similarity of knowledge-how ascriptions with knowledge-wh ascriptions. This is the central claim of the

¹²⁹ He might appeal to simplicity in making this move, but this is still a philosophical motivation for a semantic analysis.

¹³⁰ In (Stanley, forthcoming) Stanley suggests that the argument in (Stanley and Williamson 2001) is based on the idea that there are no plausible compositional semantics for English knowledge how ascriptions which are compatible with Anti-Intellectualism, as we shall see, this is demonstrably false.

¹³¹ (Rumfitt 2003), (Wiggins 2012, §18-20), (Hornsby 2011 p93).

¹³² Stanley seems to miss this point. He seems to treat the *savoir faire* construction as recalcitrant data, whereas in fact Rumfitt's main point is that there is a systematic distinction between the two constructions across languages.

Uniformity argument, which claims that the syntactic uniformity of knowledge-how with knowledge-wh shows that they express the same kind of relation.

Above, I suggested that this argument has the following form:

P1) Knowledge-wh ascriptions are ascriptions of propositional knowledge

P2) Knowledge-how ascriptions are relevantly similar to knowledge-wh ascriptions

P3) Relevantly similar ascriptions refer to the same type of entity

C) Knowledge-how ascriptions are ascriptions of propositional knowledge

A first point to consider is whether it is really so clear that the knowledge which is ascribed with embedded questions is universally propositional, as (P1) claims. Although in many cases there are obvious propositional substitutions for the embedded question, in other cases there are not. If I am watching Mo Farah sprint at the end of the 10,000 metres, I might say “Mo knows when to kick; that’s why he wins so many races.” There is no obvious propositional substitution for this ascription, because I am claiming that Mo’s know how enables him to sprint at the right time in an open-ended range of different situations, depending on what his competitors are doing.¹³³

Another reason for doubting (P1) is the existence of non-propositional theories of knowledge-wh. Schaffer and Stout have recently separately offered non-propositional theories of knowledge-wh in response to cases of convergent knowledge, in which an agent possesses knows-wh in relation to one question, and not in relation to another, despite the fact that both questions have the same fact as their answer.¹³⁴ Bengson and Moffett also doubt that knowledge-wh ascriptions express knowledge of propositions, instead claiming that they express knowledge of the objects of the question-words. In order to support (P1), Stanley and Williamson will have to offer a philosophical argument for the correctness of their preferred semantics for embedded questions, or defuse the problems which the critics pose.¹³⁵

A more significant line of criticism is opened up by asking what is meant by ‘relevantly similar’ in (P2) and (P3). Stanley offers a number of criteria on which knowledge how and knowledge-wh ascriptions are similar, which are all broadly linguistic: appealing to syntactic

¹³³ (Glick 2011 p.431)

¹³⁴ (Stout, 2006, 2010), (Schaffer 2007)

¹³⁵ Stanley begins to do this in (Stanley 2011bpp. 60-9), but by no means provides a decisive argument for his preferred account.

structure, conjunction, substitution and the uniform translation of the verb.¹³⁶ The question is then whether it is plausible that linguistic uniformity translates into metaphysical uniformity. The appeal to linguistic methodology and simplicity are plausible in some cases, but they would not convince an Anti-Intellectualist. She might appeal here to Abbott's point that although the presence of a linguistic distinction is likely non-arbitrary, and might well mark a significant distinction, the lack of a linguistic distinction does not entail the lack of significant division in the phenomena. We might find that language has failed to mark a relevant distinction, or that it marks it in the wrong place.¹³⁷

Once we go beyond the linguistic similarity in English, we find a number of pertinent dissimilarities between knowledge-how and knowledge-wh:

- i) Firstly, whereas knowledge-wh normally coheres to the traditional conception of knowledge (excepting the examples of non-propositional know-wh which we discussed above), knowledge how does not cohere to this conception, as we saw in §1.1.¹³⁸
- ii) Secondly, as Ryle points out, the interesting kind of knowledge how has a close connection to action, which seems to be different in kind from the relation which knowledge of propositions has to action.
- iii) Thirdly, knowledge how and knowledge of propositions are frequently seen as distinct explanatory notions from the point of view of cognitive ethology and psychology, as Devitt points out.
- iv) Fourthly, it is not clear that the syntactic uniformity between knowledge-wh and knowledge how is cross-linguistically stable, since there are many languages which have different constructions or verbs for ascribing knowledge how, as Rumfitt points out. If we think that linguistic distinctions are indicative of metaphysical distinctions, then we should certainly think that this distinction is philosophically relevant.
- v) Finally, in fairly basic ways, the behaviour of knowledge how in relation to answers is dissimilar from that of other kinds of knowledge-wh. In cases of knowledge-wh, that an agent is unable to answer a question or answers it falsely is good evidence that they do not know the answer to the embedded question. However, knowledge-how is

¹³⁶ See (§2.2)

¹³⁷ (Abbott 2006, p.10)

¹³⁸ (Glick 2011)

compatible with both the inability to answer the embedded question and giving false descriptions of how to do something.¹³⁹

The similarity between the sentences used to ascribe knowledge how and those used to ascribe knowledge-wh is therefore confined to English constructions, and is contrasted with many dissimilarities between the knowledge concerned. Stanley and Williamson's point in favour of their account is that they can explain why knowledge-how has attracted an embedded question construction, but limiting our attention to the embedded question construction neglects extremely relevant differences from knowledge-wh. We should want to explain the differences in the phenomena under consideration, alongside the similarities in the construction. This might be done in a number of different ways

A propositionalist Intellectualist might stick with the traditional conception of knowledge, and argue that knowledge how is a kind of primitive or animal knowledge to explain its difference from standard know-that.¹⁴⁰ Alternatively an Anti-Intellectualist could posit two kinds of knowledge to explain the dissimilarities between knowledge-how and -wh, and then give an explanation of why knowing how is knowledge to explain the syntactic uniformity.¹⁴¹ Finally, accounts of knowledge-wh which posit non-propositional objects, such as Bengson and Moffett's, would be able to give a non-propositional account of the uniformity by arguing that all knowledge-wh is knowledge of the objects which the embedded questions refer to, meaning that knowledge how comes out as knowledge of ways.¹⁴² In fact, the only position which would have trouble explaining the syntactic similarity of knowledge-how with knowledge-wh is Praxism. The Praxist claims that the words 'know' + 'how' are used to pick out ability states, a claim which is difficult to square with the fact that know-how is picked out using the word 'knowledge'.

Like the compositional argument, the Uniformity argument directs our attention towards considerations from linguistics, and away from relevant differences between knowledge how and knowledge-wh. Once we notice that there are significant differences between these two kinds of knowledge, a number of different ways of explaining the uniform syntax of knowledge how ascriptions in English suggest themselves.

¹³⁹ (Wallis 2008), (Reed, McLeod, Dienes 2008)

¹⁴⁰ (Brogaard 2011)

¹⁴¹ Perhaps by exploiting the connection between know-how and agent's knowledge (Setiya 2008 pp.406-09) or the idea that practical abilities are a form of understanding (Noë 2005 p.285), or the idea that knowledge-how in some sense underwrites the processing of knowledge (Moore 1997 p.184), (Hornsby 2011 p.86)

¹⁴² (Bengson and Moffett 2011b)

3.6. Conclusion

We ought to make a distinction between two ways of using language in philosophy: as a source of first-pass distinctions and insights into the phenomena in question, or as a source of decisive evidence about philosophical controversies. Where Stanley and Williamson have gone wrong is in taking compositional semantics and syntactic structure to be decisive evidence in the philosophical inquiry about the nature of knowledge how. It is certainly true that these considerations offer an important source of data about how we ascribe knowledge how, but they do not provide decisive evidence concerning its nature. Compositional semantics require interpretation within a philosophical picture, and can be independently motivated by philosophical considerations, meaning that the standard compositional semantics offered by linguists are not philosophically decisive. The syntactic uniformity of knowledge how with knowledge-wh, although initially striking, hides a number of important dissimilarities between knowledge-how and knowledge-wh which can be explained equally well by a variety of positions. It is not necessary to reject the usefulness of linguistic considerations in philosophical inquiry to reject Stanley and Williamson's Intellectualism. The problem with Stanley and Williamson's approach to knowledge how is not that they consider the structure of knowledge ascriptions, but that they only appeal to these considerations in motivating their account, neglecting other relevant considerations.

4. Knowing How to Use Counterexamples

Whereas critics of Intellectualism have been keen to criticise the use of linguistic evidence, the use of counterexamples in the debate seems to be accepted by all parties. There are a few well-established counterexamples to Anti-Intellectualism, which have been taken to show that the position is indefensible, most notably by Snowdon, Stanley and Williamson and Bengson and Moffett.¹⁴³ Even those who take Ryle's side feel the force of these counterexamples and the need to adequately respond to them.¹⁴⁴ In this section, I will develop a picture of the use and justification of counterexamples in inquiry to try to show that many of the extant counterexamples need not bother the Anti-Intellectualist, and that even with those which she ought to take seriously, she has a number of dialectical moves available to her to respond.

In the first section I will offer a schematic picture of what a counterexample is, and distinguish negative and positive uses of counterexamples. I will then set out a broad schema of the types of counterexample to Anti-Intellectualism. I then set out three concerns with these counterexamples. The first worry is that many of these intuitive judgements are not relevant to the issue at hand because they concern irrelevant senses of ability or knowledge how, and can be simply explained away. The second worry is that to claim that counterexamples refute a whole style of theory is to over-generalise by neglecting the variety of positions within that style of theory. Thirdly, I argue that although it is true that folk judgments endorse a gap between know-how and ability which Intellectualism can easily explain, sophisticated Rylean positions can do the same, meaning that the positions remain on par.

4.1. What is a counterexample?

In the abstract, counterexamples are a simple dialectical device. Interlocutor A makes a claim of the form 'all Fs are Gs', B points out an uncontroversial case in which an F is not a G, and A is given a reason to either retract her claim or to restate it in such a way as to avoid the problematic case. I will call this the negative use of counterexamples. The negative use of counterexamples in philosophical inquiry has a venerable lineage, going back to Plato's early dialogues, where it is a tool for showing that the firmly-held beliefs of Socrates' interlocutors universally give way to absurdity.¹⁴⁵

Although the structure of a counterexample is rather simple, their use raises a number of problems. Firstly, there must be a clear and well-understood generalisation or analysis on the table, which can serve as the target of the counterexamples. Secondly, the interlocutors must share

¹⁴³ (Snowdon 2004), (Stanley and Williamson 2001, p.416), (Bengson and Moffett 2011b)

¹⁴⁴ (Noë 2005, 2012), (Williams 2008), (Devitt 2011a)

¹⁴⁵ See the *Euthyphro*, and book 1 of *The Republic* for examples of counterexamples used to elicit aporia.

sufficient intellectual common ground to agree about the case at issue.¹⁴⁶ If B's theoretical commitments mean that she simply rejects the description of the case, then it has done no work. Thirdly, it must be clear that the example latches onto a serious theoretical problem in the account, rather than being irrelevant, frivolous or incoherent. A taxidermy specimen does not provide a compelling counterexample to the claim that all cats are warm-blooded felines. Fourthly, a successful counterexample need be not the last word on some analysis.¹⁴⁷ If a philosopher wants to restate her theory such that it avoids the counterexample, or thinks that we ought to revise our judgement about the case because her theory has virtues outweighing the cost of the revision, then she may legitimately do so.¹⁴⁸

Alongside this negative use of counterexamples, there is also a positive use of examples as a way of justifying philosophical theories. We can perhaps see this most clearly in post-Gettier epistemology, where it would be easy to read the literature as consisting in a series of theories generated to deal with counterexamples.¹⁴⁹ The most charitable reading of this kind of dialectic sees it as appealing to the ideal of reflective equilibrium.¹⁵⁰ According to this picture of philosophical justification it is one of the goals of a theory that it be able to explain the well-established judgements of the folk by setting them within a defensible theoretical background picture. This does not mean that the theory must be solely driven by folk judgements, since many folk judgments will not be consistent with other folk judgements or indeed with the background framework, but that coherence with generally held judgements is a good methodological principle for developing philosophical theories

4.2. Counterexamples to Anti-Intellectualism

There are two kinds of counterexample to the Anti-Intellectualist analysis of knowledge how in terms of capacity: cases of agents who know how to do something which they cannot do, and cases of agents who can do something which they do not know how to do, which challenge the necessity and sufficiency of the Anti-Intellectualist analysis of knowledge-how respectively.

¹⁴⁶ (Nagel 2012) suggest that it is part of the psychological basis of intuitions that they are socially shared judgements, which would explain their success in playing this role.

¹⁴⁷ (Noë 2012)

¹⁴⁸ See (Weatherson 2003) for an argument that this is a legitimate response to Gettier cases.

¹⁴⁹ For a survey of these epicycles, see (Shope 1983)

¹⁵⁰ (Rawls, 1999), (Goodman, 1955)

4.2.1. Unable Knowers

There is an easy formula to construct unable knowers – simply take someone who clearly knows how to do something, and change the details of the case so that they cannot engage in the activity in question. There are three ways in which these cases are filled out:

- i) Take someone who knows how to do something, and remove the bodily capacity required for the exercise of that knowledge how. Intuitively, the ability has been removed but the knowledge how remains. For example, we might take a cyclist, and cut off their leg so that they cannot cycle although they still know how to cycle.¹⁵¹
- ii) Alternatively we might remove the external conditions for an exercise of knowledge how to the same effect. Presumably, I would still know how to make a Christmas pudding if the world's sugar supply disappears, and I am no longer able to do so.¹⁵²
- iii) A third way of removing an agent's capacity to do something is to introduce an internal blocking condition which is activated whenever they try to do it. Susan knows how to pronounce ma'am to address the queen ('Ma'am to rhyme with spam not Ma'am to rhyme with harm') despite the fact that she's too nervous in the royal presence to ever address the queen.¹⁵³

As well as these cases in which an agent's ability is interfered with, there are cases of agents who have never been able to do what they know how to do. For example:

- iv) Teachers who are exemplar instructors about how to engage in some activity, but have never been able to engage in the activity themselves because it requires special physical training or practice.¹⁵⁴
- v) Agents who know how to engage in some activity, although it is impossible for them to complete the activity successfully. For example a competent mathematician might know how to find the n th numeral of π because she knows the relevant algorithm, but she certainly cannot find the 10^{46} numeral because she lacks the time to do so.¹⁵⁵

¹⁵¹(Hawley 2003, p.23). See also Snowdon's Raymond Blanc example(Snowdon 2004, p.8), Stanley and Williamson's handless pianist (Stanley and Williamson 2001 p.416)

¹⁵² (Snowdon 2004, p.8)

¹⁵³ (Snowdon 2004, pp.8-9) See also Carr's nervous gymnast example(Carr 1981, p.53), and cases of ageing teachers (Stanley and Williamson 2001, p.416), (Carr 1981, p.53)

¹⁵⁴ (Snowdon 2004, p.9), (Bengson, Moffett and Wright 2009, p.391), (Bengson and Moffett 2011b p.168)

¹⁵⁵ (Bengson and Moffett 2011b p.170)

4.2.2. Able Non-knowers

The other kind of counterexample concerns cases of agents who can do something, although they do not know how to do it. There are a number of different ways of constructing a case to get the combination of ability with lack of knowledge how:

- i) One might construct a case in which there is an opportunity for the exercise of ability which is unknown to the agent. For example, I might be able to get through a narrow rock opening, although I have not realised it yet. I am able to get through the gap, but do not know how to.¹⁵⁶
- ii) We could also take an agent who does not know how to do something, and have them succeed in doing something by luck. For example, Sally might get caught in an avalanche, and get out by making swimming movements, thinking that she was in water, not knowing that those very movements were an effective way of getting out of an avalanche. She had the ability to get out of the avalanche, but did not know how to do so¹⁵⁷
- iii) Finally, there are the everyday cases in which we learn how to do something as we go along. Building Ikea wardrobes are a good case in point. In such cases, presumably, we have the ability from the start, but only gain the know-how as we do along.¹⁵⁸

Having set out these examples, it is worth considering whether they address all Anti-Intellectualist analyses. In §1.4 I made a distinction between Praxists, who think that knowing how to do something is having the ability to do it, and Ryleans, who think that knowing how to do something is a capacity that relates an agent to an activity. Although many of these counterexamples are presented to Ryle's analysis, it is not clear that Ryle has a reductive account of know-how in his sights, and if he does then it is certainly not one in terms of simple ability. The extant counterexamples, however, are all concerned with the gap between know-how and ability. Hence these counterexamples will only be able to refute the Praxist, and do not obviously target either Ryle, or the Rylean who offers an account of knowledge how along Ryle's lines.¹⁵⁹

¹⁵⁶ (Snowdon 2004, p.11)

¹⁵⁷ See also Hawley's Shelly and Susie cases, (Hawley 2003, p.27), Bengson and Moffett's Irina (Bengson and Moffett 2007, p.407; 2011b p. 171), and Carr's Miltiades case (Carr 1979, p.404)

¹⁵⁸ See Bengson and Moffett's Kytoon case (Bengson and Moffett 2011b, pp.172-3) and Snowdon's improvisation case, (Snowdon 2004, p.11).

¹⁵⁹ (Weatherson 2006)

4.3. Counterexamples and Intuitive Judgement

Having been presented with the counterexamples, a Praxist might well ask why she ought to take them seriously. The standard story is that counterexample judgments are justified because they are based on snap intuitive judgments, which are a reliable source of evidence. Such a story will be particularly tempting as an account of what distinguishes philosophical methodology from that of the natural sciences, since it gives philosophical inquiry a distinctive non-scientific form of evidence.¹⁶⁰

The appeal to intuition as the distinctive methodology of philosophy is extremely contentious. Although snap judgements more often than not correct,¹⁶¹ they are subject to systematic error in certain situations.¹⁶² This is a well-established psychological result, and recently its significance to philosophical inquiry has been highlighted by studies which purport to show the presence of bias in judgments philosophical examples. There is evidence that intuitions about philosophical cases are sensitive to irrelevant factors in the set-up of examples such as the way in which the cases were framed, the order in which they were presented, and whether they use emotive language.¹⁶³ There is also evidence for interpersonal variation in intuitions based on class, education, culture, and gender, which raises the possibility that there are social biases in play.¹⁶⁴

There are a number of responses which one might make to this presence of bias in philosophical intuition. A Sceptic about intuitive judgement might use these results to reject the use of snap judgements as evidence in philosophical inquiry.¹⁶⁵ A Rationalist about intuition might argue that there is a significant class of intuitions which have special rational status which can be distinguished from the snap judgements in the above experiments.¹⁶⁶ A Nihilist about intuition might try to avoid the whole issue by contending that there is no evidence that there is a special evidential weight being given to snap judgements in philosophical inquiry (at least outside of post-Gettier epistemology).¹⁶⁷

¹⁶⁰ (Williamson 2007)

¹⁶¹ (Gigerenzer 1999), (Samuels, Stich and Bishop 2002), (Bishop and Trout 2005)

¹⁶² Two classic studies are (Wason 1968), (Tversky and Kahneman 1983)

¹⁶³ For a selection, see the studies summarised in (Bengson 2012)

¹⁶⁴ (Haidt, Koller, Dias 1993) offer evidence of socio-economic and cultural variation in moral intuitions, (Weinberg Nichols and Stich 2008) and (Machery, Mallon, Nichols and Stich 2008) offer evidence of cultural variation in epistemic and semantic intuitions respectively, and (Buckwater and Stich 2010) offers evidence of gender variation in a wide range of intuitions.

¹⁶⁵ (Alexander and Weinberg 2007)

¹⁶⁶ (Bengson 2012)

¹⁶⁷ (Williamson 2007, 2013), (Cappelen 2012)

The sceptic's response is much too quick – these studies do not show us that intuition is always unreliable; at most they show us that intuitive judgements are sometimes subject to error. I suggest that the explanation for this is that intuitive judgements about philosophical cases are examples of what Daniel Kahneman calls 'fast thinking': quick judgements which are based on association, question-substitution and heuristics.¹⁶⁸ That 'fast' thinking is subject to error is explained by the fact that it substitutes difficult for easy questions, and uses selective heuristics to come up with quick judgements rather than considering all of the available evidence. The presence of this kind of reasoning is not a specifically philosophical issue; fast thinking is ubiquitous in human life. The important question is not whether we should make use of this kind of judgement or desist from granting it philosophical credence (as the rationalist defender and experimentalist critic seem to think), but how to responsibly deal with intuitive judgements in philosophical inquiry.

Two ways of using intuitive judgements suggest themselves. One might restrict the uses of intuitions to contexts in which snap judgments are reliable,¹⁶⁹ or one might simply check up on intuitive judgement to ensure that they are not being led astray. In the absence of any compelling account of how to avoid biases, the latter seems to me to be the more promising option. Just as we ought to think twice about our practical reasoning in order to avoid biases such as loss-aversion,¹⁷⁰ we ought to think carefully about philosophical examples both hypothetical and real to make sure that our snap judgements stand up. This approach seems to reflect actual philosophical practice – judgements about cases are often carefully considered, rather than being taken as a given. This means that in a sense the nihilist is right that intuition does not play a foundational role in inquiry, since arguments are used to back up intuitive judgements, but this does not mean that we can neglect the psychology of intuitive judgement, since deliberate judgment easily can be led astray by plausible but false intuitions.¹⁷¹

4.3.1. Explaining away Intuitive Judgement

In order for the counterexamples which I described above to be evidence against Anti-Intellectualism, it must not only be that we judge that they are possible cases in which there is a gap between ability and knowledge how; these judgements must stand up to closer philosophical scrutiny. In particular we should be cautious, because there are a number of related concepts which might be indicated in judgements about knowledge-how and ability.

¹⁶⁸ (Kahneman 2011), this hypothesis has been also been proposed by (Spicer 2008), (Nagel 2012)

¹⁶⁹ (Alexander and Weinberg 2007), (Bengson 2012)

¹⁷⁰ (Kahneman 2011, C27)

¹⁷¹ A nice example of this phenomenon is the number of mathematically proficient people who responded to the publication of the Monty Hall problem by confidently producing fallacious proofs of the wisdom of sticking with the chosen door rather than switching. (Tierney 1991)

4.3.2. Ability

There are a number of related concepts which surround judgements of ability, which brings a great deal of expressive power to natural language, but also introduces the possibility of confusion. We say that someone can do something, that they could do it, that they can do it *now*, that they are able to do it, and that they have the ability to do it. Attempting to distinguish the jobs which these concepts do is a task beyond this section, but a couple of observations will suffice to show that intuitive judgement is easily confused.

When we judge that someone cannot do something, there are two kinds of judgement which we might be making: that they lack the capabilities required, or that they lack the opportunity for the exercise of those capabilities.¹⁷² I cannot run a four-minute mile if I am not fit enough, but I also cannot run a ten-minute mile if my legs are tied together (although I am fit enough to do so). Judgements about what people *can* do are even more complex: they can concern physical possibility (anyone young enough to train can run a four-minute mile), actual possibility (I can run a ten-minute mile right now with my shoes on, but not with them off) or opportunity (I can run home because I brought my running shoes in with me).

In order for the counterexamples to hold up against the Praxist, the lack of ability cases must be ones in which the agents lose their ability, and the lack of know-how cases must be ones in which the agents possess an ability despite their lack of knowledge how. I will suggest that several of the cases do not achieve this result.

The case of lack of opportunity cases should not trouble the Praxist. In this case I retain the ability, but am not able to exercise it because of the lack of opportunity, so the example does not address the Praxist's claim, and cannot show that her account of knowledge how is false. It is entirely natural to say that I cannot make a Christmas pudding in the world without sugar since I do not have the opportunity to do so, but it would also be right to say that I have the ability to make a better Christmas pudding than my brother.

We might also want to say that the cyclist losing her leg is a condition which interferes with her ability rather than removing it, since she could easily acquire a prosthesis which would allow her to exercise her ability.¹⁷³ On this line of response, the leg is not a part of the ability, but rather an opportunity for its exercise. This response is a little trickier, and might require some revision to intuitive judgement, but there is certainly something intuitively plausible about it. Upon gaining the

¹⁷² (Kenny 1989, C5) (Glick 2009 p.101; 2011, 2012), (Noë 2005. 2011).

¹⁷³ (Noë 2005 p.283)

prosthesis, the cyclist does not gain a new ability, but regains the opportunity to exercise the ability she had before her unfortunate accident.

We can make similar moves in the cases of opportunity without know-how and lucky success to argue that these agents do not possess ability. In the cases of opportunity it is natural to say that the subject can do something which they do not know how to do, but this need not imply that they in fact have the relevant ability, since the judgement is set up as one about possible courses of action, not the agent's capacity. In Hawley's case of the lucky snow-swimmer our intuitive judgement is that Sally is able to swim out of the avalanche, but that she does not know how to, because she has never heard of making swimming movements to get out of an avalanche. She certainly could get out of the avalanche in the sense of having the physical capability – after all she did – but this does not show that she had the ability to do so, since her getting out is explained by the fluke of her hallucination, rather than her abilities.¹⁷⁴ She did not have the ability to snow-swim, but she had all of the physical capacities required to do so, which the situation fortuitously caused her to exercise in the right way.

4.3.3. Knowledge how

We ought to also be careful in distinguishing types of knowledge how. Above I pointed out that there are several types of knowledge ascribed with the word how which are irrelevant to the issue at hand: knowing how I ought to do something, and knowing how something is done. If counterexamples involve these types of knowledge how then they do not present a problem for the Praxist, since she is not committed to an analysis of these types of knowledge.

A good example to illustrate this point is Snowdon's Susan example. Susan has learnt how to address the queen but be unable to do so due to her Royal nerves. Does she possess the practical kind of knowledge how? Perhaps not: we might think that we can better describe the case by saying 'she knows how *one ought* to address the queen, but cannot do it' than by saying 'she knows how *she can* address the queen, but cannot do it.' If this description of the case holds up, then the counterexample breaks down, because the Anti-Intellectualist is not concerned with the non-propositionality of this kind of knowledge how.

¹⁷⁴ (Setiya 2012), (Fantl 2008)

Perhaps we could also make a similar move in the cases of the unable teachers and say that they know how one does, or ought to do various things, but do not know how to engage in these activities themselves, a move suggested by both Stanley and Noë.¹⁷⁵

Without supplementary arguments, intuitive judgements are at best weak evidence that a counterexample is genuine, which means that we ought to give hypothetical cases close consideration before accepting them. This raises the possibility that intuitively plausible cases will break down, as we have seen. I have illustrated two ways in which the Anti-Intellectualist can respond to the counterexamples presented above by distinguishing between different sense of 'can', and species of knowledge how.

4.4. The Counterexample Fallacy

Even if a counterexample succeeds, it is not the final word on an analysis. The important part of an analysis is not the exact terms in which it is expressed, but the insights which it encapsulates. It is always legitimate for a theorist to try to restate their theory in different terms to avoid the relevant counterexamples, or to claim that we ought to revise our judgement about the relevant cases. In short, it is fallacious to conclude from the existence of one counterexample to a theory that all versions of the theory are problematic.

In a recent discussion of counterexamples to the conditional analysis of dispositions, Bonevac, Dever and Sosa make this point succinctly:

“Counterexamples refute proposals, more or less one at a time [...] while they can refute specific instances of a style of theory, counterexamples are not in themselves to the style as a whole. Instead they are tools for refinement, allowing a better choice of specific instances of that style to be endorsed.”¹⁷⁶

They call the fallacy of generalising from one counterexample to a specific analysis to the failure of a style of theory the *Counterexample Fallacy*. They concede that it is possible to refute a theory using counterexamples, but point out that in order to do so one must find a formula for generating counterexamples, which exploits the basic commitments of a style of theory.

¹⁷⁵ (Stanley 2011b p.128), (Noë 2005, p.284) it is worth pointing out that genuinely unable teachers are rarer than is often thought: most teachers can do at least a bit of what they teach. The only example of a truly unable teacher which I have encountered is the case of Carmine Caruso, a famous brass teacher who could only play the saxophone. In his case, the deontic reading holds up because Caruso's practice consisted in correcting seemingly irrelevant features of his students' performance which impeded good playing, and giving callisthenic exercises.

¹⁷⁶ (Bonevac, Dever and Sosa 2011)

To give an example of this fallacy, an epistemologist might conclude from Gettier's 1963 cases that the justified true belief (JTB) theory of knowledge is false. This would be much too quick, because Gettier's examples are rather narrowly focused. The actual cases in Gettier's paper are aimed against a JTB theory of knowledge which construes justification along Internalist lines,¹⁷⁷ and has no auxiliary conditions. In response to these cases, a JTB theorist might add other conditions (such as no false lemmas), strengthen the justification condition or move to an externalist account of justification. What we need to convert Gettier's cases into a problem for the JTB theory is not examples in which an agent has justified true belief but fails to possess knowledge, but a general recipe for coming up with such cases which picks up on essential features of the JTB analysis. Linda Zagzebski suggests that the key to constructing Gettier cases is the conjunction of an element truth-undermining but justification-independent bad luck, with truth-restoring but justification-independent good luck, which results in a subject fulfilling the conditions of the analysis, but only by luck.¹⁷⁸ This recipe will apply to any JTB theory, since all members of this family or theories endorse the idea that there is some gap between justification and truth (otherwise it would be the JB theory). If this recipe holds good, and only then, can we say that the JTB theory is refuted by Gettier-style examples.

It is clear that all of the counterexamples which I address above are concerned with Praxism. All of the cases are constructed to show the gap between knowing how to φ and the ability to φ , and say nothing about the other abilities or capacities which an agent might have. To see how other Anti-Intellectualist positions might avoid the counterexamples it will be useful to consider Ryle's position. Ryle claims that knowing how to go something is the capacity to act intelligently within a certain range, which he cashes out in terms of the ability to apply criteria to performances (one's own or others'). Adding conditions which interfere with performance or removing the opportunity to act oneself does not obviously remove the ability to apply criteria to performance, nor does it seem possible to construct an example in which someone luckily applies criteria to performance. The counterexamples simply miss what Ryle says about knowledge how.¹⁷⁹

A Praxist may also defend her position from these counterexamples by pointing out that the problems which they identify are really not problems with Praxism, but with the accounts of dispositions or abilities which Praxism appeals to. It is striking that the many of the counterexamples to Praxism have similar structures to well-established counterexamples to the conditional analysis of

¹⁷⁷ Gettier is not explicitly addressing an Internalist, but the explicit detail in the cases which he discusses is along the lines of an Internalist theory of knowledge. (Gettier 1963)

¹⁷⁸ (Zagzebski 1994 p.69)

¹⁷⁹ (Weatherson 2006)

dispositions. The cases of non-able knowers do look to be cases in which a disposition is masked by external conditions and the cases of lucky success look like cases of mimicking dispositions, so perhaps what we need is an account of abilities which can handle these problems. If a Praxist could provide an account of ability which deals with these problems, or argues that ability is a primitive term in her analysis then her account might be defensible against these cases.¹⁸⁰

4.4.1. Formulae for Counterexamples to Anti-Intellectualism

Bengson and Moffett have tried to take the significance of the counterexample fallacy on board by proposing formulae for generating counterexamples to Anti-Intellectualism. They make two stabs at this, both of which fall short of showing Anti-Intellectualism to be false. The first contends that any account of knowledge how which does not include understanding is mistaken because it will allow cases of agents fulfilling the conditions of the analysis but failing to know how due to misunderstanding.¹⁸¹ The second diagnoses what they take to be a structural flaw in Anti-Intellectualism.¹⁸²

4.4.2. Formula 1: Lack of Understanding

Bengson and Moffett's guiding thought in constructing their first formula is that knowledge how is exercised in intentional action, which requires understanding, meaning that misunderstanding undermines knowledge how. This suggests a formula for generating counterexamples to any analysis of knowledge-how: describe a case such that the agent fulfils all of the conditions of the analysis of knowledge how, introduce a misunderstanding which undermines their knowledge how, before introducing whatever conditions are needed so that the misunderstanding does not undermine the conditions of the analysis.¹⁸³ They give an example of lucky success as an example. They describe a skater, Irina, who has a mistaken conception of how to do a move called the Salchow, but nonetheless is able to perform the Salchow reliably (thereby fulfilling the conditions of the target Praxist analysis), because her mistaken conception is brought into action by a neurological abnormality which means that she brings the Salchow off normally whenever she tries.¹⁸⁴

¹⁸⁰ Ryle is committed to a conditional understanding of dispositions for which these problems are likely insoluble, but this part of his analysis is presumably logically independent from his claims about knowing how. See (Ryle 2009, C5)

¹⁸¹ (Bengson and Moffett 2007)

¹⁸² (Bengson and Moffett 2011b)

¹⁸³ In their 2007 they do not talk about formulae for counterexamples, but see footnote 31 for a suggestion that they see the case of Irina as offering this kind of challenge.

¹⁸⁴ (Bengson and Moffett 2007 p.46). One worry about this case is whether it is coherent, as the neurological detail of the case is critically underdescribed.

Putting to one side concerns about the coherence of this case, the formula does not show that Anti-Intellectualism is false.¹⁸⁵ As they admit, at best the formula shows that understanding must be present in or entailed by the final account. But they have no reason for supposing that an Anti-Intellectualist account of knowledge how might not entail understanding. Ryle certainly thinks there is a connection between knowing how and understanding, as he claims that “understanding is a part of knowing how.”¹⁸⁶ Additionally, if there is as close a connection between intentional action and understanding as Bengson and Moffett think, then a Praxist could avoid the counterexamples easily by saying that knowing how to do something is the ability to engage in that activity intentionally.¹⁸⁷ If they were to make this move, it would mean that cases along the lines of Irina’s could not be constructed because misunderstanding would be incompatible with the agent’s ability to act intentionally. To see this, it is worth considering that Irina’s case is basically similar to deviant causal chain counterexamples to the causal theory of action, which everyone agrees are not cases of intentional action.¹⁸⁸

4.4.3. Formula 2: A Structural Flaw

Bengson and Moffett’s second formula exploits the structure of the counterexamples sketched above to contend that Anti-Intellectualism has a structural flaw.¹⁸⁹ They consider non-necessity and non-sufficiency cases to the equation of knowledge how with ability, and argue that in order to respond to these counterexamples, the Anti-Intellectualist would need to both weaken their view and strengthen their view. The cases of unable knowers mean that less than ability is required for knowing how, whereas the cases of able non-knowers entail that more than ability is required. It seems impossible to both weaken and strengthen the ability condition in these ways, so they contend that there is no way for Anti-Intellectualism to deal with both styles of counterexample simultaneously.

The problem with the tension argument construed as a problem for Anti-Intellectualism in general is that the ability-analysis which it targets means that it only causes problems for Praxism, rather than all versions of Anti-Intellectualism. If we think that knowledge how is a complex of dispositions rather than just a single ability it is possible to respond to both styles of counterexample. Someone who knows how but cannot engage in the characteristic activity of that know-how will usually be able to engage in other relevant activities (teaching, instructing,

¹⁸⁵ Although it does provide an interesting way of giving counterexample to Stanley and Williamson’s analysis (Bengson and Moffett 2007, pp.47-9)

¹⁸⁶ (Ryle 2009, p.41)

¹⁸⁷ (Setiya 2012)

¹⁸⁸ As Setiya points out (Setiya 2012), (Davidson 1963)

¹⁸⁹ (Bengson and Moffett 2011b, pp.166-78) see also (Fantl 2008, pp.455-58)

observing). Someone who can engage in the characteristic activity (by luck or whatever) but does not know how by contrast will typically not be able to engage in these other activities. Therefore, Ryleanism can respond to both the cases of unable knowers, and the cases of able non-knowers.

4.5. Explaining the Views of the Folk

Alongside the negative use of counterexamples, some have tried to use the above counterexamples as evidence for Intellectualism.¹⁹⁰ The thought seems to be that since there are well-established folk judgements which show a gap between knowing how and ability, this is something which a theory of knowing how ought to be able to explain if it is to establish reflective equilibrium with the views of the folk. It would be fairly easy to explain this gap on typical Intellectualist views. If we think that knowing how to do something is knowing that such-and-such is a way of doing it, then we can explain why the unable knowers, know, and the able non-knowers do not. The agents in the first cases possess a piece of knowledge-that which those in the second lack; their abilities are irrelevant.

The problem with the consideration of the gap between ability and knowledge how construed as an argument for Intellectualism is that all developed Anti-Intellectualist views also make a distinction between knowledge how and ability.¹⁹¹ The gap between ability and knowledge how might cause a problem for Praxism, but it is not a problem for all Anti-Intellectualist views.

In fact, Ryle can offer a nice explanation of the problematic cases of interfering conditions, lucky success, and learning as you go along, which are the remaining cases which pose a gap between know-how and ability.

Ryle claims that knowledge how to do something can be exercised in activities other than the doing of the activity narrowly construed, because he sees the characteristic exercise of knowledge how as the application of criteria to action. He claims that:

“You exercise your knowledge of how to tie a clove-hitch not only in acts of tying clove-hitches and in correcting your mistakes, but also in imagining tying them correctly, in instructing pupils, in criticising the incorrect or clumsy movements and applauding the correct movements that they make, in inferring from a faulty result to the error which produced it, in predicting the outcomes of observed lapses, and so on indefinitely.”¹⁹²

¹⁹⁰ Bengson, Moffett and Wright suggest that the views of the folk offer evidence for Intellectualism. (Bengson, Moffett and Wright 2009, p.400).

¹⁹¹ (Carr, 1979, 1981), (Setiya 2008, 2012), see (§1.3.2.)

¹⁹² (Ryle 2009 p.42)

This offers a nice explanation of why agents who are prevented from doing what they know how to do, still possess knowledge how. Although one way to apply criteria to action is to apply them to one's own, another is to apply them to others, either in instruction or in skilled observation. This means Ryle can explain why unable agents and teachers possess knowledge how. In both cases, the agents can apply their knowledge in instruction and criticism, despite the fact that they cannot perform the activity narrowly construed.

Ryle can also explain why the cases of lucky success do not count as knowledge how. Consider his comment on flukes:

"To decide whether his [the marksman's] bull's eye was a fluke or a good shot, we need and he himself might need to take into account more than this one success. Namely, we should take into account his subsequent shots, his past record, his explanations or excuses, the advice he gave to his neighbour and a host of other clues of various sorts" ¹⁹³

The thought here seems to be that the fact that someone succeeds at doing something is insufficient to demonstrate their knowing how because success does not guarantee their having the right kind of intelligent capacity. An intelligent success needs to be explained by ability, rather than fluke, and one way of checking this is to check other situations in which the agent might exercise her knowledge.¹⁹⁴ It seems to be pretty plausible that all of the cases of lucky success are 'flukes' in Ryle's sense.

The case of doing something while learning, and impossible activities require us to go a little beyond Ryle's discussion, although in a Rylean spirit. It is a neglected point that Ryle's discussion concerns examples of general knowledge-how which relates agents to practices, such as fishing, cooking, chess-playing and reasoning, rather than examples of knowledge how tied to particular tasks.¹⁹⁵ We might say that he is interested in general know-how. Examples of this general know-how can be found in the cases of learning while doing: if I am following an Ikea plan to build a wardrobe, then I certainly have the knowledge how required to follow plans. It is this general knowledge-how which gives me the ability to make wardrobes. This does not entail my knowing how to make this particular wardrobe, in fact more likely than not I do not possess this knowledge. Similarly, in Bengson and Moffett's π example, for Ryle the agent concerned possesses general mathematical know-how plus the algorithm for finding digits in the decimal expansion of π . For Ryle, this knowledge does not entail knowing how to find the 10^{46} digit, which is a distinct piece of

¹⁹³ (Ryle 2009 p.33)

¹⁹⁴ On explaining success by ability see (Sosa 2009, C2), (Greco 2010, C5)

¹⁹⁵ (Hornsby, 2011 p.87), (Wiggins 2012 esp. p.103)

knowledge-how (which presumably requires knowing how to use computer algorithms, and so on). The combination of ability with lack of know-how which these cases are designed to show breaks down when we introduce a notion of general know-how.

4.6. Conclusion

In this section, I have considered the use of counter-examples against Anti-Intellectualism, and found it lacking on a number of counts. Although we do make intuitive judgements to the effect that there is a gap between knowledge how and ability, we should be cautious before taking these judgements to refute Anti-Intellectualism, or offer evidence for Intellectualism. A first point is that the examples target Praxism, meaning that other Anti-Intellectualist views are not obviously affected. Furthermore, intuitive judgements are at best a blunt tool, and can often be explained away, as we have seen. Even if some examples go through, Anti-Intellectualism might develop its position to include more sophisticated accounts of ability or move to claiming that knowledge how is a kind of capacity distinct from mere ability. The intuitive gap between judgements of know-how and ability does require explanation, but I have argued that Ryle offers a model for explaining the cases of unable knowers, lucky success, learning and impossible activities.

That there are many problems with the use of counterexamples does not mean that they are irrelevant: they push the Anti-Intellectualist to make important clarifications to her view, and provide her with examples of knowledge how upon which to hone her view. They may also show that some analyses are false: perhaps supporters of Praxism will be convinced by the counterexamples of unable knowers, or able non-knowers, and give up the view. My point is that the Anti-Intellectualist is not compelled to give up her position in response to these examples, as she has a range of dialectical tools to respond to them.

5. Putting Knowledge-How into Action

There has been a great deal of attention paid to the structure of the sentences which are used to ascribe knowledge how, and the combinations of know-how and ability in various hypothetical cases, but almost none paid to the role that knowledge how plays in the life of a minded creature.¹⁹⁶ However, as we have seen, issues in the philosophy of mind remain in the background in discussions of know-how ascriptions and counterexamples to Praxism. To readdress this imbalance, I will sketch a number of conditions about the role of know-how in the life of a minded creature which can then serve as a basis for assessing different accounts of knowledge how. I hope to make a plausible case for three conditions: that knowledge how is a state which is characteristically exercised in successful intentional action, that acting intentionally is associated with knowledge how under some description, and that knowledge how grounds reliable action. These conditions are not, I hope partisan, but are rather necessary conditions on knowing how which both Intellectualists and Anti-Intellectualists can agree on. To show how these conditions might lead inquiry into the nature of knowledge how, I will show that they cause problems for Stanley and Williamson's account, and sketch a Rylean account which is better able to deal with them.

In the first section, I will set out three conditions which I take to encapsulate the connection of knowledge how to intentional action, and offer some evidence that these conditions are widely accepted. In the second section, I will return to Stanley and Williamson's Intellectualism, to consider how they might account for these conditions. I will argue that their appeal to deferred ostension is not satisfactory in arguing for the general presence of knowledge how, because of the indefiniteness of demonstrative reference. Furthermore, they have difficulty accounting for the fact that knowledge how grounds reliable action, since on their account ways of acting with specific situations, whereas knowledge how needs to be general to ground reliability. In the third section, I will turn to the role which knowledge of procedures plays in intentional action, and set out a picture of the interaction of propositional and non-propositional knowledge in intentional action.

5.1. Knowing How and Intentional Action

The connection between knowledge how and intentional action seems to be a background assumption in recent literature on knowledge how, perhaps motivated by the thought that someone who knows how to engage in some activity can – in the normal case at least – engage in that activity. As we have seen in the previous section, there is a great deal of controversy about whether knowing

¹⁹⁶ Notable exceptions include (Hornsby, 1980, 2005, 2011, 2012a), (Moore, 1997), (Kumar 2011), (Setiya 2008, 2009, 2012)

how is ability-entailing, so we cannot just appeal to ability to explain this connection. As an alternative, I suggest that there are three conditions which connect knowledge-how to intentional action:

- i. Knowledge how is a mental state such that its characteristic exercise is successful intentional action.
- ii. Knowledge how plays a general role in agency, in that acting intentionally always requires some knowledge how.
- iii. Knowledge how is a state which secures reliable action in a range of circumstances.¹⁹⁷

5.1.1 The Exercise of Knowledge How

The first condition is eloquently expressed by Anscombe:

“When we ordinarily speak of practical knowledge we have in mind a certain sort of general capacity in a particular field, but if we hear of a capacity it is reasonable to ask what constitutes an exercise of it. [...] in the case of practical knowledge the exercise of the capacity is nothing but the doing or supervising of the operations of which a man has practical knowledge.”¹⁹⁸

Anscombe’s thought seems to be that the intuitive concept of knowledge how or practical knowledge is that of a general capacity and that the exercise of this capacity is a range of intentional actions.

There are two important clarifications to make here. To say that knowledge how is a capacity to engage in intentional action is not to say that this capacity is not grounded in propositional knowledge. My capacity to open the safe in Paul Snowden’s office is grounded in my knowing that the combination to the lock is such-and-such a sequence.¹⁹⁹ Hence, this condition is compatible with Intellectualism. In fact, Bengson and Moffett make the claim that knowledge how is apt to guide intentional action a central part of their Intellectualist account of knowledge how.²⁰⁰

The second important clarification is that saying that the characteristic exercise of knowledge is successful intentional actions is not to say that knowledge how is only exercised in successful action. We need space to say that we exercise knowledge how when we mess up doing

¹⁹⁷ These three conditions by no means exhaust the connections of knowledge how to action. Knowledge how plays an important role in practical reasoning, (Setiya 2008), non-observational knowledge of action (Setiya 2008, 2012), and responsibility judgments (Ryle 2009 pp.56-59).

¹⁹⁸ (Anscombe 1957, p.88)

¹⁹⁹ (Lewis 2004, p.100), (Snowdon 2004, p.9)

²⁰⁰ (Bengson and Moffett 2011b)

something or are stopped before we complete a whole act.²⁰¹ It is in the *doing* of intentional actions which we exercise our knowledge how, which means that we begin exercising this knowledge when we start acting.

5.1.2. Intentional Action and Know-How

The second condition takes the idea of knowledge how as a capacity to engage in intentional action, and generalises it to all intentional action. Anscombe again:

“‘Intentional action’ always presupposes what might be called ‘knowing one’s way about’ the matters described in the description under which an action can be called intentional, and this knowledge is exercised in the action and is practical knowledge.”²⁰²

It is tempting to read this condition as saying that if an agent is acting intentionally she knows how to do what she is doing intentionally. This claim is too strong, because there are a number of situations in which it is possible to intentionally engage in some activity without knowing how to engage in it. For example, we sometimes learn how to do things by doing them,²⁰³ and we follow plans to build things without knowing all of the steps ahead of time.²⁰⁴ Perhaps it is even possible to bring something off intentionally but luckily without knowing how to do it.²⁰⁵

We can deal with these cases by introducing a level of sophistication into our discussion. That which we do intentionally has a number of different descriptions, some of which are intentional, others of which are not. For example, the pumper’s pumping of the water is intentional; his casting a shadow on the rocks is not.²⁰⁶ The descriptions under which action is intentional are hierarchically ordered by a by-chain of rationalisation which expresses the structure of the agent’s practical reasoning. The pumper is moving his arm in order to pump water, in order to replenish the water-supply and so on. The claim about the general presence of knowledge how does not need to extend to all of the intentional descriptions, but only to descriptions which are lower in the chain of rationalisation.²⁰⁷

Consider my activity as I build a house: I might be doing all kinds of things intentionally (brick-laying, cement mixing, plastering) in order to build the house, but without knowing how to build a house. Perhaps I am simply following a very detailed set of instructions which I retrieved

²⁰¹ (Hornsby 1980, p.80; 2012a, 2012b)

²⁰² (Anscombe 1957, p.89) For defence of this thesis see (Setiya 2008, 2012)

²⁰³ (Bengson and Moffett 2011a pp.33-35)

²⁰⁴ (Bengson and Moffett 2011b)

²⁰⁵ (Setiya 2008 p.404)

²⁰⁶ (Anscombe 1957, §23)

²⁰⁷ (Setiya 2008 pp.389-92; 2012)

from the internet.²⁰⁸ My lack of high-level knowledge how does not mean that I not building a house intentionally, since I have knowledge how relating to more teleologically basic descriptions of my action.²⁰⁹

There is nothing here to trouble the Intellectualist; in fact Stanley and Williamson endorse the strong, unmodified version of this thesis:

“We do find it very plausible that intentional actions are employments of knowledge-how. Indeed [...], the thesis that intentional actions are employments of knowledge-how is precisely what accounts for the initial plausibility of Ryle's original argument against the claim that knowledge-how is a species of knowledge-that.”²¹⁰

5.1.3. Know-How and Reliability

The third condition expresses a demand for reliability from agents who possess knowledge how. Although it is a serious question how to formulate this demand, I think that it is extremely plausible.²¹¹ Firstly, knowledge is a concept which has clear conceptual links to reliability, so we ought to expect reliability from knowledge how, which is after all a species of knowledge.²¹² Secondly, there is a strong intuition that someone who pulls something off but could not do so in slightly different circumstances does not know how to engage in that activity.²¹³ If I intend to perform a somersault on a trampoline and do so successfully, but could not do so in a relevantly similar situation, then I do not know how to perform a somersault.

We can express this condition by saying that knowledge how is a relation to something which is generic which can be exercised in an open-ended range of situations.²¹⁴ Something like this condition is formulated by Katherine Hawley in her discussion of the counterfactual success condition on knowledge-how.²¹⁵

²⁰⁸ (Bengson and Moffett 2011b)

²⁰⁹ On teleological basicness, see (Hornsby 1980)

²¹⁰ (Stanley and Williamson 2001, pp.442-3) see also (Stanley 2011b, pp.185-90). Bengson and Moffett claim to reject this condition in their 2009, but then exploit a connection between intentional action and understanding in their 2011b to argue that knowledge how is understanding, which suggests that they do accept some version of this thesis

²¹¹ One suggestion is that this reliability condition should be expressed as a safety condition, along the following lines: if S tries to φ , then she will not easily fail at φ -ing, and will usually bring her φ -ing off successfully. See (Brogaard 2011, p.147) for discussion of knowledge how and safety.

²¹² (Moore 1997, pp.173-81)

²¹³ (Carr 1981 p.53)

²¹⁴ (Hornsby 2011)

²¹⁵ This might depend on how we flesh out the contextual elements of her discussion (Hawley 2003)

As with the other conditions, this claim compatible with an Intellectualist position: it is a necessary condition on knowing how, and not a sufficient condition.²¹⁶ In fact, Stanley endorses Hawley's modal success condition as expressing the modal force of know-how ascriptions.²¹⁷

5.2. Stanley and Williamson on Knowledge How and Action

To see how these conditions can be a useful way of assessing accounts of knowledge how, I will consider how Stanley and Williamson's account might deal with them.

To recap, they claim that the nature of the relevant kind of knowledge how is captured by the following claim:

(S&W2): S knows how to φ if and only if for some contextually relevant way, w , which is a way for her to φ , there is a practical mode of presentation, m , such that she knows under m that w is a way for her to φ .

Although they do not explicitly discuss how their account is to explain these conditions, it seems clear that they do have resources within their account which are geared towards explaining them.

To explain the fact that knowledge how is characteristically exercised in successful intentional action, they will presumably appeal to the idea that knowledge-how is knowledge of propositions considered under a practical mode of presentation, which disposes agents to act in certain complex ways (see §2.4.3.). And to explain why the characteristic exercise of this knowledge is *successful* action, they presumably have to give a picture of ways of acting in which they are finely-grained and detailed representations of successful action, indexed to the particular situation. If they do not make this move, a 'way' will look more like a loose set of instructions, then it will require an intelligent operation to enact it, meaning that Ryle's regress can start off.²¹⁸

To explain the general presence of knowledge how in intentional action, they will appeal to deferred ostension, as this is their favoured tool for responding to examples in which it is in question whether someone possesses the relevant propositional knowledge.²¹⁹ Their appeal goes something like this: everyone who acts intentionally possesses the propositional knowledge with which they are concerned, because anyone who is acting intentionally can point to their activity, and say "*this* is

²¹⁶ This is a point which has missed the many commentators who claim that Hawley is an anti-intellectualist. See (Hawley 2010, p.403) for clarification of this point.

²¹⁷ (Stanley 2011b, p.126-7)

²¹⁸ (Fridland, forthcoming-a, forthcoming-b)

²¹⁹ (Koethe 2002) See, for example (Stanley 2011a, p.214) on Schiffer's Mozart example, and (Stanley 2011b, pp.161-2) on the punch-drunk boxer.

how I can do it,” and in so doing express their knowledge of the way of doing what they know how to do.

The third property of knowledge how is a little more tricky to explain on **(S&W2)**, since ways of acting need to be indexed to particular successful actions in order to explain success, whereas knowledge how is generic, securing reliable action in a range of situations.²²⁰ In discussing Stanley and Williamson’s appeal to Ginet’s door-opening example, Hornsby points out that:

“Rather than enabling your participation simply in the event of your turning the knob that actually there was, your knowledge how to turn a door knob ensures that you would turn the knob in an appropriate way in a range of circumstances.”²²¹

One option to get in the required reliability is to say that knowing how to do something is not just the knowledge of one way, but of a set of ways of acting which are appropriate for a range of situations. Stanley seems to endorse this picture of knowledge how when he claims that:

“When we say that a skilled outfielder knows how to field a fly ball, we do not mean that he knows, of at least one way to field a fly ball that it gives him counterfactual success in fielding fly balls. [...] Rather, in such a case, we mean the mention-all reading of the embedded question. What we assert when we assert of a skilled outfielder that he knows how to field fly balls is that he knows *all* of a set of relevant ways that give him success in fielding fly balls.”²²²

Stanley makes this claim as a way of showing that his account is able to explain the nature of expertise, but I think that it is legitimate to construe this as a general move to deal with the problem of securing reliability.

If we introduce the mention-all reading of the embedded question in knowledge how ascriptions, then we should change the analysis to:

(S&W3): S knows how to φ if and only if for each of a contextually relevant set of ways, w_1 , w_2 , ... w_n , which are all ways for her to φ , there is a practical mode of presentation m such that S knows under m that that way is a way for her to φ .

²²⁰ (Hornsby 2011, p.92)

²²¹ (Hornsby 2011 pp.94-5)

²²² (Stanley 2011b, p.183)

5.3. Ways of Acting

Many philosophers have argued that the idea of the practical mode of presentation is the suspicious notion in Stanley and Williamson's analysis. I think that it is in fact the notion of a way of acting which is suspicious. We ought to be sceptical both of Stanley and Williamson's sketchiness in discussing ways of acting, and of the appeal to deferred ostension as a way of securing the general presence of knowledge of ways.

Above, in §2.4.2, we saw that Stanley and Williamson claim that ways are properties of token events. They do not intend to pick out a manner of acting, but something more like the method according to which agents act. We have also seen above that these methods need to be indexed to particular situations in order that they are suitable to guide agents to success in action, and that they also need to be known by anyone who acts intentionally to explain the general presence of knowledge-how.

Certainly sometimes we do know a ways to do thing, which guides us to success; the question is whether we should think that whenever we act intentionally we know such a way, under a practical mode of presentation. The only reason which Stanley and Williamson give us for thinking that we do is that we are able to use deferred ostension to pick out our method for doing whatever we are doing intentionally. But by itself, the appeal to the possibility of deferred ostension is not sufficient to show this because deferred reference does not always succeed in picking out a method. Any action is an instantiation of a huge number of different properties, and simply pointing to it will not pick out any one without further context.²²³ For example, if while cycling I say to someone "*this* is a way in which I can cycle," the right response would not be "Ah, you are cycling like *that*," now I know how you cycle," but "yes, I can see that you are cycling, but *how are you cycling?*"²²⁴ Activity typically instantiates too many ways for it to be possible to simply pick them out like we do the colour of an object. In the examples which Stanley and Williamson discuss (the cyclist who cycles in a funny manner, the punch-drunk boxer) further context is supplied by the situation, which locates a particular way of acting, but these are rather unusual cases, which do not demonstrate that intentional action is always associated with this kind of knowledge.

The reason why the appeal to deferred ostension might seem plausible to Stanley and Williamson is that they take actions to be particulars – token events – meaning that it should be easy

²²³ This problem has a similar structure to the generality problem for process reliabilism. See (Conee and Feldman 1998)

²²⁴ As Wiggins puts this point "Does not a demonstration like this, turning upon a 'that' whose proper elucidation draw upon the demonstrator's know-how, exceed the limits of any possible explication of 'this' or 'that' by which a putative purely propositional knowable could be identified?" (Wiggins, 2012 p.25)

to pick out their properties. However, the realm of human agency is not confined to the causation of token events: sometimes we are in the course of doing things without having got to the end, and sometimes we are stopped in the course of acting. In both cases we will have been acting intentionally, but not performed any token event intentionally. In order to account for this fact, we shall need to realise that the right ontology for action is one of process not of events.²²⁵ Actions unfold, rather than coming in event-sized pieces, and intelligence is exercised through acting.²²⁶

Paying due attention to the on-going character of action makes it seem even less plausible that a demonstrative can pick out my way of acting. If I am cycling from Russell Square to Hampstead, then there is *no* token event of riding to Hampstead to refer to because I have simply not got there yet. I cannot use a demonstrative to refer to the method which is a property of my on-going performance, because it is not settled how I will get to Hampstead. I might need to take a detour; I might get stopped at the traffic lights. This point then generalises to explain why deferred ostension fails in many cases.

The point about the unfolding of action also has implications for what it takes to secure reliability in propositional terms. Since I might engage in a number of different ways of getting to my goal, in order that any of these possible courses of action be guided solely by propositional knowledge, I must know all a whole range of conditional propositions, which represent ways of responding to the situation as it unfolds.²²⁷

5.4. Assessment

We have seen that if Stanley and Williamson's seek to explain the above features of knowledge how, they are committed to saying that an agent who knows how to do something must know a whole range of finely-grained ways of acting, which can guide them to success in a suitable set of situations, alongside a number of conditional propositions which allow them to adjust to various eventualities which might arise in the course of their activity. There are a number of problems with this account.

- i) Firstly, it requires a huge number of pieces of knowledge to explain intentional action. The account looks less like a philosophical reading of the linguistics literature, and more like a substantive and controversial epistemological claim about what we know when we know how to do something.

²²⁵ See (Hornsby 2011, 2012b, 2013), (Steward, 2012), (Thompson 2008, 2011)

²²⁶ (Hornsby 2012a)

²²⁷ (Bach 2012) Thanks to Robert Craven for making this point clear to me.

- ii) Secondly, it requires an account of what the range of situations in which an agent will exercise her knowledge how are. Without this, the need for reliability commits **(S&W3)** to ascribing agents an indefinite amount of propositional knowledge. If we think that knowledge how prepares us for an open-ended set of different situations, then there is simply no way of specifying this knowledge in propositional terms.²²⁸
- iii) Thirdly, once the agent has a range of knowledge in play which she exercises in order to engage in some activity, it becomes increasingly important that they are guided by the appropriate proposition. It is little help to me that I know many ways of catching fly--balls if I cannot be guided by the right one at the right time.²²⁹ Stanley needs an account of the selection of the appropriate method, which does not need to appeal to an intelligent mechanism for selecting methods.
- iv) Fourthly, the heavy epistemic commitments of their account of knowledge how ascriptions makes it much less plausible that we do in fact know the propositions which **(S&W3)** commits us to knowing in the problem cases posed to Stanley and Williamson's analysis. Consider how Stanley and Williamson could possibly go about convincing Schiffer that the 8 year old Mozart knows a whole host of propositions concerning various methods for writing symphonies.²³⁰

The underlying problem seems to be that Stanley and Williamson want to specify the content of knowledge how in a way that its manifestation fully explains successful intentional action, but they also need to be able to explain the fact that knowledge how disposes us to act reliably, which commits them to saying that someone who knows how possesses an enormous, potentially indefinite amount of knowledge.

5.5. Knowledge of Procedure and Non-Propositional Know-How

The failure of Stanley and Williamson's position to account for the role of knowledge how in action will be grist to the mill of the Praxist. However, we might worry that the Praxist position falls in to the same error of the standard reading of Ryle: assuming that because knowledge of propositions does not exhaust knowledge-how, it has no role to play in it.²³¹ Jennifer Hornsby has recently offered a compromise position, by arguing that if we want an account of the knowledge

²²⁸ (Hornsby 2011), (Wiggins 2012)

²²⁹ (Fridland, forthcoming-a)

²³⁰ (Schiffer 2002)

²³¹ See (Dreyfus 2002) for a Praxist position which seems to fall into this problem.

which we exercise in action, we shall need to pay due attention to the role of both propositional and non-propositional knowledge.²³²

I know how to make tea, and I do so often. When I do so, I generally follow a set of steps: i) boil the kettle, ii) get out the mug, teabag and milk, iii) put the boiled water on the tea bag, and add milk, iv) take out the teabag when it is brewed. I could not make tea without knowing that these steps are a way of doing so. However, knowing a method does not exhaust the knowledge which I exercise in tea-making. I must have all kinds of propositional knowledge about the situation (where the teabags are what they look like, whether the milk is off), and various pieces of standing knowledge (what tea and milk are).

I must also know how to engage in the various steps if I am to follow the method successfully. I need to know how to boil a kettle, get out the mugs and so on. This knowledge parallels the by-relations between descriptions of intentional action we saw above: I know that I can boil the water by turning on the kettle, which I can do by flicking the switch and so on. To save from attributing me an indefinite number of pieces of knowledge, my knowledge of means must bottom out somewhere, with some activities which I can ‘simply do’ without the need to exercise knowledge of methods.²³³ For example, I presumably have the knowledge how which equips me to simply reach out and flick the kettle on.

We might call knowledge of step-wise methods, and of the means to take to engage in the various steps, *Instrumental* knowledge how, and call knowledge which lies at the bottom of the by-chains, *Basic* knowledge how.²³⁴ Although instrumental know-how is clearly propositional, it is difficult to see how basic know-how could be. I simply engage in those activities which are basic for me, so there *is no way in which I engage in them*. The question ‘how?’ has application (in Anscombe’s special sense) to both basic and non-basic action, but whereas in the case of non-basic action, the agent has an answer of the form “I can φ by ψ -ing,” in the case of basic action, her best answer is something along the lines of “I can just do it.”²³⁵

As well as Instrumental and Basic knowledge how, we must have a variety of other capacities to secure successful action. When I am acting out my knowledge of a procedure, I need to know when to move from one step to another, and how to do so. I must also be alive to the progress which I am making in following this plan, adjusting to contingencies and errors in performance. If I

²³² (Hornsby 2005, 2011, 2012a)

²³³ (Hornsby 1980, 2005, 2013)

²³⁴ (Hornsby 2005 pp.112-20) I have replaced her term ‘procedural knowledge’ with ‘instrumental knowledge’ in order to avoid confusion with the psychological notion of procedural knowledge.

²³⁵ (Hornsby 2005 p.114, 2013)

absent-mindedly put coffee into the mug instead of tea, I need to pick up on this, and take appropriate action to get my tea-making back on course.²³⁶ I also need the capacity to pick up relevant knowledge along the way, organising my attention to the features of my situation which are relevant to the task at hand.²³⁷ For example, I need the capacity to find the tea amongst all of the other things in the cupboard, and to keep track of the position of the mug through the tea-making. In other words, there is a receptive dimension of intentional activity which is crucial to success in action.

In cases in which we are acting without having a plan in mind, this receptive dimension of intentional action becomes crucial. If I set out to walk to Hampstead Heath without knowing the way, it will be very important to me that I have the requisite capacities to work out when I am on the right track and when I am not, and that I can pick up relevant information along the way. In such cases my activity is intelligent insofar as I know how to find my way, and not insofar as I know the way. There is an element of improvisation and spontaneity to acting without a plan which would be hugely difficult to adequately model on an Intellectualist account.²³⁸

When we act, we act for reasons, so it should not be surprising that we exercise knowledge of means and methods for achieving our goals. However, we must also take basic means, and adjust along the way, so we need to know our way about, to borrow Anscombe's phrase. I hope to have sketched a reasonably plausible picture of how this knowledge is exercised, although there are many loose ends, which I do not have space to address here.

5.6. Conclusion

In this section I have set out several connections between knowledge how and intentional action, shown how they cause problems for Stanley and Williamson's Intellectualism, and sketched a compromise position between Praxism and Intellectualism, according to which both propositional and non-propositional knowledge is exercised in intelligent action. This position deserves to be called Rylean, since it pays attention to the importance of non-propositional knowledge in action, but it equally respects the importance of propositional knowledge in intentional action. Although my discussion has been brief, I hope to have shown that further consideration of the role which knowledge how plays in the life of a minded creature might be extremely fruitful.

²³⁶ (Falvey 2000)

²³⁷ (Hornsby, 2005 p.117), the perceptual aspects of skill are also discussed by (Dreyfus, 2002), (Noë, 2005), (Merleau-Ponty, 2012)

²³⁸ (Ryle 1979), for an attempt, which appeals to the connection between the *de se* and dispositional states see (Stanley 2011b, pp.181-85)

6. Conclusion

I have principally been concerned with methodological issues in this essay, so in summing up I will briefly summarise my methodological conclusions, and take stock of where they leave the debate about the nature of knowledge how.

I have looked at two main sources of evidence for Intellectualism: linguistics, and counterexamples to Praxism. I have argued that although the evidence from linguistics suggests a form which a plausible Intellectualist account might take, neither the compositional semantics of knowledge how ascriptions, nor the linguistic uniformity of knowledge-how with knowledge-wh offers decisive evidence for Intellectualism. Stanley and Williamson rely on several Intellectualist assumptions in setting up their analysis from the semantics, and their appeal to the linguistic uniformity of knowledge-how with knowledge-wh occludes some important dissimilarities between these kinds of knowledge. This is not to say that linguistics is irrelevant, but that it ought to be considered alongside other sources of evidence. Similarly, the counterexamples which are extant in the literature are not decisive evidence against Anti-Intellectualism. All of the examples target Praxism, which is only one of a number of possible Anti-Intellectualist positions. Even if the examples do target all Anti-Intellectualist positions, the Anti-Intellectualist has a number of moves available to her in responding to the counterexamples. She might, for example, adjust the terms of her account, or argue for a revision in intuitive judgement.

My principal methodological conclusion is that the use of linguistic evidence and counterexamples are not self-standing sources of evidence, but require sophisticated understanding of other issues, and ought to be used alongside other sources of philosophical evidence. I have tried to demonstrate how other kinds of evidence can be fruitful in the final section by considering the connection between knowledge how and intentional action.

My positive contribution to the debate about the nature of knowledge how is two-fold. I have undermined the two main arguments for Intellectualism, and have tried to carve out the logical space for a Rylean version of Anti-Intellectualism. The neglect of Rylean positions about the nature of knowledge how is striking, since Ryleanism can seemingly account for all of the relevant data. It is able to explain the linguistic data about knowledge how (§3.4 and §3.5), can explain our judgements about the gap between know-how and ability (§4.5), and can explain the connection between know-how and Intentional action (§5.5). I suspect that Anti-Intellectualist will have their best case in developing the conceptual resources of Ryleanism, rather than in defending Praxism.

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